A Lecture
ON
SOFTENING OF THE BRAIN.

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WE very frequently hear the expression "softening of the brain." It is often used by educated patients; for many people who simply suffer slight and often but temporary nervous exhaustion think, always erroneously, that they have "softening," or are going to have it. It is really an expression of pathological application, but just as the symptomatic word "apoplexy" has come to have a pathological meaning (effusion of blood), so the pathological term "softening" has come—so, at least, it appears to me—to be used, even by some medical men, as a name for a certain rude clinical grouping of symptoms in cases in which there really is no softening. This use of the term is to be deprecated. Let me mention the symptoms of cases wrongly called "cases of softening." We see patients who have become excitable, irritable in temper, and desponding; they have found that their attention easily fails, and that they cannot do their accustomed work; they usually sleep badly; they have often what they call headache, but it is mostly not an ordinary headache, either in kind or in position; it is a feeling of pressure, or sometimes of burning, and its seat is the vertex or the back of the head; there is very often, indeed, a disagreeable feeling at the occiput and in the upper parts of the spine, more distressing than pain—an intolerable physical feeling; the queer feeling in the spine is often intermittent, and frequently comes on slowly with great depression of spirits. Altogether there is a strange mixture of "mental" and "physical" symptoms. Recognising the group of symptoms I have mentioned as a fair clinical entity deserving particularly careful study, I do not see the evidence for the diagnosis that softening of the brain is the pathological change causing them. Such cases are called by the laity nervous debility, and often by medical men hypochondriasis. The symptoms, I think, indicate nervous exhaustion, beginning often in the sympathetic nervous system, and secondarily affecting the nutrition of the highest centres in the brain. Of course this is only hypothetical, for there is no morbid anatomy of such cases. Everyone's conclusion as to their pathology must, therefore, be hypothetical. These symptoms are often produced by excesses, and especially by sexual excesses, and by "fast life" generally; they are sometimes suddenly developed by fright, and may be brought on by misery or by overwork, either of the mind or the body, especially when the work is done under responsibility. Of course they occur most often in persons who inherit a weak temperament, who bear trouble badly, who are easily excited and easily depressed. In some of the cases the patients get quite well by simple common-sense care, and the delusion that they have softening vanishes. In the graver, prolonged, and ingravescent cases, I should think there was no softening of the brain, but rather greater firmness of it; atrophy of nerve-cells and fibres, with increase of connective tissue; there is some atrophy of the brain. In saying this I am not making a very strong statement. We often see considerable atrophy of the brain at post-mortem examinations on those who have died of non-cerebral disease, and whose mental condition has attracted no attention. Atrophy of brain is normal in old people; it is often seen in middle-aged drunkards and even in comparatively young people who have been long bedridden by wasting diseases not primarily involving the nervous centres. I mention this, as you may think the statement that there is some atrophy of the brain an extravagant conclusion as to the state of things in a man whose symptoms are those of prolonged and severe hypochondriasis or nervous debility, or whatever the right name or label is.

Be sure there is no softening in these cases. Indeed, I do not see how the diagnosis that there is actual softening of the brain is in any case to be possibly arrived at, *unless the patient has certain local paralytic symptoms, as hemiplegia, or some other symptoms implying a local cerebral lesion, such as affection of speech*; or, again, unless there be signs of cerebral tumour (severe headache, urgent vomiting, and double optic neuritis), or evidence of injury to the head. For, so far as I know, cerebral softening is always local; I know nothing of general or universal softening of the brain. To be warranted in diagnosing softening, you must have symptoms which point to local disease. I do not say that local cerebral softening cannot exist without localising symptoms. I only say that in their absence you are not warranted in diagnosing its existence. We know that large parts of the brain may be destroyed without any marked local symptoms resulting; these parts may be destroyed by the process of softening without causing marked local symptoms. But in these cases the softening is mostly about tumours or other kinds of adventitious products. It is, however, almost an abuse of language to speak of these as cases of softening. The softening is, I suppose, a result of encephalitis about the tumour. We shall not refer to these cases again. For all practical purposes they belong to a distinct category. The cases which deserve to be called cases of softening are cases in which there is blocking up of cerebral arteries, or, which is infinitely rarer, of cerebral veins. Of these only shall I speak.

It is from the distribution of arteries, it is "for arterial reasons" so to speak, that there are localising symptoms in softening. The highest part of the motor tract (corpus striatum) and adjacent convolutions are usually the parts of the brain damaged or most damaged in softening, or simply the parts of the brain which often undergo softening. And this is because the artery which supplies these parts is an artery—the middle cerebral—which often gets blocked up, for reasons we shall afterwards state. Hence hemiplegia and affections of speech are the symptoms to be most trusted in the diagnosis of cerebral softening, for they are the symptoms producible by disease of the parts mentioned as being supplied by an artery which often gets blocked up. Curiously, however, unless there be valvular disease of the heart to, as it were, insist on softening by the process of embolism, cerebral softening is frequently not diagnosed in cases of hemiplegia and affection of speech when it often exists. Suppose that perfect hemiplegia comes on in a quarter of an hour without loss of consciousness in a patient past middle age, who has not renal disease, we are practically certain of local cerebral softening. There is in these cases softening by thrombosis—a commoner cause of local softening than embolism. Thus we see that the word "softening" is used by some for cases of nervous exhaustion and cerebral atrophy where there is not that pathological change, and, strangely, those who so use it very often do not diagnose softening in the really simple cases of hemiplegia coming on without loss of consciousness where it does exist. Sometimes, indeed, when the diagnosis is made that hemiplegia has been caused by embolism, because the patient is young and has valvular disease of the heart. There seems to be no clear notion in the mind of the diagnoser that he has before him a case of softening. There are two reasons for these mistakes. First, hemiplegia is too often attributed as a matter of course to cerebral hæmorrhage, and softening is not thought of. This is, I think, because clot is oftener seen at post-mortem examinations in cases of hemiplegia, as it is a more speedily fatal lesion. We have more autopsies on patients who die from cerebral hæmorrhage, because they die sooner, and therefore under our care. Nevertheless, hemiplegia, *coming on without loss of consciousness*, is mostly caused by softening. I except cases of chronic renal disease, for hemiplegia in these cases, as a matter of fact, nearly always depends on effusion of blood, whether there be loss of consciousness at the onset of the paralysis or not. A second reason for the mistake in diagnosis is that there is a widespread impression that general mental symptoms *must* exist if there be "softening." I shall devote a great part of this lecture to show that this is an error, or, at any rate, it is an error to suppose that softening of the brain *necessarily* causes *general* mental symptoms *directly*. Observe, I say directly, because I shall show that softening may be preceded by general mental symptoms, and may be followed by general

mental symptoms. But in neither case do these symptoms depend directly on that softening. Observe, too, that I speak of *general* mental symptoms. I admit that softening directly causes special mental symptoms—loss of speech, for example. I deny that it directly causes general mental symptoms, although I admit, as I have said, that it may be preceded and followed by them. It is practically convenient to speak first of *special* mental symptoms *directly* resulting from softening; then of general mental symptoms following it. Although out of chronological order, it is more methodical to consider the mental degradation which may precede an attack of softening after speaking further of arterial changes.

Certainly there is not necessarily any direct connexion betwixt cerebral softening and *general* mental symptoms. There need be no such symptoms at the onset. The typical case is that of the middle-aged man who, having gone to bed feeling well bodily and mentally, finds out when he gets up in the morning that he cannot use his left side, but who is as clear in mind as usual; yet that man has local softening, or rather thrombosis of an atheromatous artery supplying a part of the motor tract, which will therefore speedily soften. We are obliged to make some kind of arbitrary limit. We speak of cases commonly met with. But, as I shall tell you, later there may be deep coma from blocking of the trunk of the middle cerebral artery—coma as deep as that producible by large cerebral hæmorrhage. A patient may have, however, special mental symptoms, without any insensibility, at the onset of softening, and as a direct result of it. Such cases I now consider.

Special mental symptoms directly resulting from softening.—The parts of the brain which most frequently soften are, as I have just said, the highest divisions of the motor tract; most often the corpus striatum and adjacent convolutions—that is, in other words, the parts supplied by the middle cerebral artery. If a large part supplied by the right middle cerebral artery be softened, there need, after the shock of the onset, be no obvious mental symptom of any kind. If a branch of the *left* middle cerebral artery be blocked there is a mental symptom, but then it is not a general one, but an exceedingly special one—viz., affection of speech (aphasia). Affection of speech *is* a mental symptom. A person who has lost speech has lost a part of his mind. Indeed, if the *trunk* of the middle cerebral artery be blocked there is very extensive softening, and a state very like imbecility as well as loss of speech; the patient's power of expression in all ways, and even the exhibition of states of feeling by smiling, &c., may be gone. Even then the symptom is a special one—loss of language or loss of speech.*

General mental symptoms may follow local softening. We will for convenience speak separately of those following in a few days (these are usually temporary), and then of those following weeks or months after; these are often permanent. Remember the simple case we took for purpose of illustration. A patient, about fifty, has become hemiplegic without loss of consciousness. This is the symptomatic statement; the pathological statement is that he has local cerebral softening.

General mental symptoms following a few hours or a few days after local softening.—After a short time the hemiplegic patient may begin to "wander," although at first, and usually all through his illness, he can pull himself together, clearing his mind of his fancies, and can reply to ordinary questions correctly. The mental symptoms are of a general character. There is not a loss of one faculty in particular, but a reduction of the whole mind to a more automatic condition. The patient "wanders" about his business, about the persons or places to which he is most accustomed (which are most automatic to him). He imagines that he is doing his work, and he may take strangers for those persons to whom he is most accustomed. I repeat there is not here loss of any one faculty, there is no special mental symptom. The patient is reduced to a more automatic condition of mind. There is Dissolution, using this term as the opposite of Evolution. Then, of course, much depends on the kind of brain the patient had before his illness. Old drunkards will have more absurd delusions, illusions, and hallucinations than persons who have not abused their nervous systems. My own belief is that this state results simply because the hemiplegic patient's brain power is slightly reduced in a universally lowered bodily condition, and that it is not caused by the very local disease of his brain. A local softening, practically an absence of brain (circumscribed destruction, could not possibly cause such *active* mental symptoms as we have mentioned. These symptoms are, in my opinion, often owing to debility. Let me explain how I think *debility* produces *active* symptoms. Explanation is required, as the expression seems paradoxical, and the expression "debility" wants definition. Probably the hemiplegic patient has, for theoretical reasons, been put on a spare diet, a diet next to nothing, although the very local damage in his brain has not seriously affected his digestive organs—not obviously affected them at all. The palsy has alarmed and depressed him, and he has not in consequence slept, or has not slept well. Very likely he has had a strong purgative, and perhaps blisters to the back of his neck. These mental symptoms are often due in great part to want of food. Very likely the poor fellow may have every day for years eaten and drunk far too much. Some people eat little during the day, and then "stun" themselves at dinner. If such a man be taken hemiplegic just before his dinner hour he would feel the want of food in the night. We should be cautious how we begin to change a man's habits, even bad habits, very soon after an attack of hemiplegia. If we do not keep up his arterial tension the parts of his brain *the furthest from his heart* will not get plenty of blood. The parts geographically furthest from the heart are the most intellectual; he may therefore become delirious if his arterial tension be much lowered. When I have spoken more about arterial changes, you will see that the brain of a man who suffers softening is often one of which the apparatus for nutritive supply has long been getting slowly defective. He is usually past middle age. There is arterial degeneration, and thus the circulation of distant parts will fail very easily. So far, we have concluded that there is defective blood-supply, and corresponding defect of action of the highest, that is of the most intellectual nervous arrangements. But obviously this negative condition could not account for *active* mental symptoms. Before I speak of the manner in which I believe the active symptoms to result let me widen the field of observation.

I would earnestly beg you to bear in mind that I declare that such mental symptoms are not characteristic of cerebral softening; they are just as likely to occur with hemiplegia from clot as with hemiplegia from softening; they cannot be due directly to either; they cannot, as I have said, be due to a circumscribed "destroying lesion" of any kind. But we can go far beyond this statement—we can say that these symptoms are rarely dependent on *primary* disease of the brain of any kind. In general physicians' practice very active mental symptoms (delirium) are rarely even associated with primary disease of the brain of any sort. Of necessity they imply something wrong in the brain, but the brain is suffering secondarily, "functionally," as the popular and inexact expression is. Such symptoms are common in the medical wards of a hospital. The patients in whom they occur are those whose primary ailment is not a cerebral one; they occur in phthisis, in chronic Bright's disease, in pneumonia, in erysipelas, and in pyæmia—in some cases of these diseases, I mean. As a rule, the more acute the disease, and therefore the more rapidly the brain suffers secondarily, the more active, the more uproarious and constant, the mental symptoms. They occur without a very high temperature oftener than with one. The temperature is often normal. Now we come to the explanation.

Such mental symptoms are on an utterly different platform from all other kinds of nervous symptoms. Remark, they are positive, or, as I said, active symptoms. Negative mental symptoms, such as loss of speech, imbecility, defect or loss of consciousness, are often owing *directly* to disease of the brain, but the most extravagant and most changing positive mental symptoms must in all cases, even where

* I must insist that loss of speech is a mental symptom. For we speak not only to tell other people what we think, but to tell ourselves what we think; rather a proposition is the ending of a mental operation, and often the beginning of another. The aphasic can still think in some fashion; he remains able to do so, I consider, because, although speechless, he is not wordless; he has remaining the automatic and unconscious use of words in the right undamaged cerebral hemisphere. I believe, too, that there is a similar duality of Perception, or, rather, that the process which ends in perception is double. This process is not affected in cases of aphasia. There is, I think, chiefly from disease of the right posterior lobe, a mental state which I call "Imperception," corresponding to Aphasia in the Word series. I do not discuss this symptom in the text, for, besides other and better reasons, the topics necessarily to be considered are numerous.

there is disease of the brain, be due to the action of parts of the brain which are *not* the seat of a lesion which produces *loss* of function. They are due to the action of parts which, except for over-excitement, are healthy. I am fully convinced that in all cases, from the insanity of slightest delirium to insanity ordinarily so-called, there is, as Dr. Monro says (in accordance with a principle many years ago formulated by Laycock), a negative and a positive condition. There is loss or defect in the highest faculties along with exaltation of those lower and more automatic. It is even so in health; automatic mental action goes on during sleep or reverie. But we shall keep to actually morbid conditions. I wish to impress on you that it is the negative element only which is the *direct* result of disease. Now mark, the delirious patient is symptomatically in a double condition. The negative element is defect or loss of consciousness. Unfortunately such an expression often rouses thoughts about coma; but be sure that there are all degrees, from the slightest and most transient confusion of mind (defect of consciousness) to deepest coma. Now, the defect of consciousness is the condition produced directly by loss of arterial tension leading to failure of the highest centres—those most distant from the centre of the circulation. With regard to the causation of the positive symptoms (the delirious ravings &c.), we may apply the principle Austie stated when he said "that the apparent exaltation of faculties is due to removal of controlling influences," or, as Thompson Dickson said of delirium and mania, that "they result from loss of control," or as Rutherford says,* "to diminution of inhibitory power." When a man is delirious his negative state is, I repeat, that his highest nervous arrangements in the cerebrum, the substrata of consciousness, are more or less put out of use; he has defect of consciousness. In any general lowering of health the very highest nervous arrangements are the first to fail. (Principle of Dissolution.) The positive or active symptoms, the illusions, delusions, and grotesque actions, are owing to the action of the lower nervous arrangements, which, except for over-excitement *permitted* by the loss of control, are healthy. (Principle of Loss of Control.)

You may reply that the active mental symptoms may be attributed to active disease about the original lesion—about the softening or the clot. This is contrary to the evidence. It is a grave error in any case to put these symptoms down as a matter of course to meningitis, encephalitis, or to any kind of acute primary head affection. It is a deplorable error if it leads to severe purgation, to blistering the back of the neck, leeches, and low diet. The characteristic symptoms of encephalitis, meningitis, and acute brain disease generally are not mental, but physical. Thus, besides gross motor affections, convulsion, and paralysis, there are alterations of circulation, respiration, temperature, and constipation, vomiting, &c. Do not forget this seemingly paradoxical statement, that the trustworthy symptoms in the diagnosis of acute and primary disease of the organ of mind are physical, and that the untrustworthy symptoms for that diagnosis are mental.

General mental symptoms slowly developing weeks or months after an attack of softening.—These certainly follow at too great an interval to be erroneously attributed to the local damage which caused the hemiplegia. They often develop when the hemiplegia has become chronic. A general mental and bodily failure often follows a severe attack of hemiplegia, the result of local softening. It is not due to that softening nor to any extension of it; it is, I suppose, a result of secondary atrophy of the whole or of a large part of the hemisphere in which the local softening lies. But remark that widespread atrophy of a hemisphere follows on any large cerebral lesion, not on softening in particular; it follows clot, for example, and it may follow tumour, as is evident in some very long-standing cases. I say in some very long-standing cases, for, of course, in most cases of tumour, as we see them post mortem, from the added bulk and from œdema of the brain about the tumour, the convolutions are flattened and the brain looks bigger. Probably here there is concealed atrophy. In cases of autopsy in adults who have been hemiplegic from infancy, we may find, besides the local paralysing lesion, extreme wasting of one cerebral hemisphere. This is, I think, a consequence of the local damage which caused the hemiplegia. There was at first, I suppose, softening by thrombosis of a branch or of the trunk of the middle cerebral artery. This local softening is afterwards represented by a cyst. The atrophy is consecutive and secondary.

The mental symptoms following late (weeks or months) after an attack of hemiplegia are more slowly developed than those following immediately, hence they are very different. The deterioration shows itself both intellectually and emotionally. There begins to be loss of power of connected thought on difficult, novel, and complex subjects, or, speaking simply, the patient is soon confused; there is also peevishness and selfishness. Both these are highly characteristic of slow mental degradation. This is just what one would expect *a priori*. From a process so uniform as atrophy of the brain you would expect failure to begin slowly, and, on the Principle of Dissolution, that it would affect first the highest and most special of all faculties, or we may say those faculties last acquired both by the race and the individual. These faculties are power of abstract reasoning (intellectual) and sentiment of justice (emotional).* That these two faculties are the most special is seen by the fact that young children and savages have little or none of either. It is said that Australian savages have not even such abstract words as tree, red, justice, &c. Now, inferior people among the civilised are inferior because these faculties are little developed in them. I repeat, these are the two faculties developed latest; they fail first in cerebral disease where the whole brain is slowly implicated. So far for the principle of Dissolution, under which comes the negative condition. Next for the positive symptoms. The process of dissolution which directly causes the negative indirectly causes, or rather permits, the positive.

Patients with general cerebral deterioration, like persons naturally inferior, are easily excited; for by saying that they have defect in their highest processes, we say that they have defect in their controlling or inhibiting processes. To be easily excited is to have little controlling or inhibitory power. Here again comes in the Principle of loss of Control. Every healthy man has all animal passions and instincts, but the properly organised man has them under control of well-developed higher faculties. Thus chastity is not the absence of sexual feeling, but the having it deep under the control of higher feelings. Here you see that the principle of the same explanation holds good as was given of the mental symptoms following soon after local softening. In the production of the class of symptoms just considered, the process of dissolution is very slow, and thus the control is slowly removed. The suddenness and rapidity with which control is removed is of vast importance; the more rapidly it is removed the more activity is there of the centres uncontrolled. Thus, in the epileptic maniac (the most furious of all maniacs) the control has been removed very suddenly and with great rapidity.

Defective sense of justice seems too fine a phrase for selfishness, peevishness, and greediness; but it is really a correct statement of them. The feeling of justice is regard for others. Of course the results of disease are as different as are the persons to whose brains disease comes. For example, inferior men who have little sense of justice while in health, are made very irritable by trifles and easily take offence. They would soon, even by a non-cerebral illness, display bad temper, greediness, &c. Then some men have a feeling of justice in excess: generosity is excess of justice; generosity is not simply an easy, soft, careless nature. Such men are less likely to become selfish and greedy when the brain begins to fail. They have a reserve of good faculty. Defective power of abstract reasoning also seems too fine a phrase for the confused mental state of many of our hemiplegic patients. But it is really a correct expression; I don't mean that they have difficulty in reasoning on abstruse subjects. What puzzles them is connected thought about things out of their routine, and which are not simple and actually before them. Persons of congenitally inferior minds are easily confused by anything complex, especially if it be novel.

So, then, when general mental symptoms follow weeks or months after local softening a sufficient explanation is given, not by the softening, which may not increase in extent as the symptoms develop, but by the slow consecutive atrophy.

To resume. Excluding softening about tumours and softening from gross causes similarly obvious, I know nothing of softening of the brain except that resulting from blocking of cerebral vessels. This, you will see, is

* THE LANCET, April 29th, 1871.

* See Herbert Spencer's Study of Sociology, chap. xv.

saying in effect that softening of the brain is local; there is a softening of some part because a vessel supplying that part is blocked up. I have used in a former part of this lecture the expression "extension of softening." I wish to remark that, excluding softening about tumours, softening from injuries, &c., I know nothing of "extension of softening" except in the very simple sense of its resulting from new blockings up of arteries near those formerly blocked up.

The softening I have to speak of is a partial necrosis of brain mostly in arterial districts. Hence the first and essential thing in the study of softening is the study of the process and results of blocking up of arteries. It is exceedingly important to realise that it *is* a question of *arteries*. See how it bears on hereditary transmission of disease. Hemiplegia from local softening occurring in a person whose family has been subject to nervous disorders is no evidence whatever to show an inheritance of nervous disease, for the simplest possible reason that hemiplegia so caused is not strictly of nervous origin. The same remark applies to hemiplegia from clot, and thus it applies to nearly all cases of hemiplegia, for this form of palsy arises in the vast majority of instances from bad cerebral arteries; they break or get blocked up. Hemiplegia is the common arterio-cerebral symptom partly because an embolus can more easily get into the middle cerebral artery for anatomical causes, and partly because this vessel lies more directly in the way of strain from the heart, and thus is the most diseased and the most easily ruptured. To show how very mechanical, so to speak, the reason is for the predominance of this arterio-cerebral symptom, I mention that Prevost and Cotard found that tobacco-seeds injected into a dog's carotid most often lodged in the animal's middle cerebral artery. In fact, I know of no evidence to prove that any form of hemiplegia is ever of direct nervous origin—i.e., that the pathological changes causing it *begin in nervous tissue*. Hence it is, I think, very inaccurate to speak of a patient who suffers epilepsy as having a *tendency* to nervous diseases because his father or mother had such symptoms as hemiplegia, loss of speech, softening of the brain, &c. Your notions on hereditary transmission of nervous diseases will be confused unless you bear in mind that nearly all "nervous diseases" are really instances in which the pathological changes begin in *non-nervous tissue*. Very many of them begin in the compound tissue (artery), and many of them in the simple tissue (connective). Besides symptoms of arterial origin there are nervous symptoms from intra-cranial tumours (including syphilitic growths), abscesses, hydatid cysts, &c. All these are pathologically extra-nervous. So, in inquiring for evidence as to hereditary tendencies in a patient who had any kind of nervous affection, you try to get evidence as to general states; for what you really want most to know is to what tissue-changes the patient's family is prone. You only inquire about nervous symptoms in other members of the patient's family (paralysis, &c.) as indirect evidence of this. You inquire, too, for rheumatism, gout, for facts as to renal disease, as well as ask if there be paralysis, insanity, &c. What you most wish to know is, what tendency there is to arterial (including cardiac) changes. My own belief is, that in this direction of inquiry we shall find out the pathology of the neuroses. I do not believe that chorea and epilepsy are nervous diseases in the sense that the pathological changes *begin in* nervous tissue.

In all the cases I have mentioned so far nerve-tissue *suffers*. It is not primarily at fault. As to the neuroses, remark that according to most physicians their pathology is unknown. We cannot say, then, that they are hereditary as *nervous affections* simply because they pervade a family. Hemiplegia, apoplexy from cerebral hæmorrhage, softening, &c., may pervade a family, but this is not evidence that that family is predisposed to nervous disease, for the simple reason that all the three so-called *nervous* diseases mentioned are affairs of arteries, not a whit more significant than defect of sight from retinal hæmorrhage or epistaxis—arterial affairs too. In these cases it is more important to seek evidence of a tendency to arterial change than to note the occurrence of nervous disease or symptoms in the patient's blood-relations.

Mental symptoms preceding cerebral softening.—It is important for another reason to bear in mind that cerebral softening is a question of arteries; for, since local softening is due to blocking up of arteries, it is hard to see how such so-called causes of softening as anxiety and overwork can be said to produce it. Such causes may help to produce the clinical grouping of symptoms, often called softening, of which I spoke at the beginning of my lecture. Fright and anxiety—which latter is only fright spread out thin—are, indeed, potent causes, especially in predisposed persons, of severe, very distressing, and long-continued nervous symptoms, such as sluggishness of mind and body, failure of power of attention, incapacity for sustained exertion, &c.; but I do not see how they can produce that *local* pathological change which is properly called softening. I do not deny that hemiplegia from softening (thrombosis) is often said by patients and their friends to have been preceded by anxiety or overwork—"caused by" such things, they will affirm. I think the most reasonable explanation is that the brain has been slowly getting into a condition in which it is easily excited and easily overworked; for in many such cases (softening from thrombosis) there is widespread degeneration of the cerebral arteries, and thus a worse nutrition throughout the brain, before the actual softening of some part results because one of these bad arteries has become blocked up. In some cases before the hemiplegia, the patient had manifestly become, as he would say, although not in these words, incapable of connected thought on any unusual matter, forgetful of things slightly out of his routine duties, and we should learn from his friends that he had become irritable and selfish. What I told you on failure of the two highest faculties in consecutive atrophy of the brain applies here. As a rule, the failure of mental power before softening is much slighter, and occurs more slowly; it is often spoken of by the patient's friends as indifference to business, fidgetiness, and "alteration" of disposition. These symptoms are no doubt, in persons who have degenerated arteries, the result of an uniformly bad state of the vessels of the brain. This prior condition of ill nutrition does not, so far as I know, lead to *general* softening, however slight we may suppose that softening to be.

You will now see that the causes of softening of the brain, properly considered, lead you to consider the state of the arterial system—lead you beyond the nervous elements of the nervous system. I repeat that very few nervous diseases are directly of nervous origin. A great part of our knowledge of the pathology of cerebral softening is in the answer to the question, Why do arteries become diseased, and thus "blockable"? Obviously if the softening of the brain be very limited in extent, and the symptoms therefore slight and transitory, the consideration of the patient's general bodily state is the really urgent matter. It would be a very poor thing to dwell with exaggeration on the hemiplegia, and ignore the state of the patient's heart, arteries, &c. It would be a very unclinical mind which could feel comfortable about a patient who was very "degenerate" simply because he had speedily got rid of hemiplegia. Inquire into degenerations of all systems of tissues, and examine all important organs. Nor must you suppose that you are taking a broad view of a case if you dwell exclusively on important superficial matters—state of digestion, sleep, and occupation. You will have your patient's sympathies in making such investigation, for he can, or he supposes he can, follow your inquiries and understand their bearing. It is best to begin with the paralytic symptoms; then to consider the superficial, but very important, conditions; and, lastly, the deeper lying and most important evidence as to general pathological and pathogenetical states. The patient will wonder what you are at if, first of all, you examine his heart, urine, and arteries, when he comes to you because he cannot use his right arm and leg. Again, do not be illogical when the paralytic symptoms are slight and transitory. Suddenly occurring and transitory slight symptoms, such as affections of speech, unilateral numbness, may be owing to little foci of softening (or rather to thrombosis of small arteries, which in due time lead to local softening), just as much as permanent paralysis may be owing to extensive softening. Of course the slighter the symptoms the more need is there practically to consider many possibilities, for slight symptoms are not necessarily so easy of explanation as grave symptoms often are. After carefully considering all the causes I can think of, I feel warranted in attributing in many cases the slight and transitory nervous symptoms I have mentioned to local softening; for vessels of very small size may be blocked up as well

as vessels of great size, and in correspondence there are foci of softening from the size of a pea upwards. Simple as this remark sounds, the principle deducible from it is not always borne in mind. Slight and transitory hemiplegia, which we are warranted in putting down to blocking up of very small arteries, is often hastily ascribed to general states of ill-health—for example, to affection of the liver, &c. In so explaining them you would have your patient's sympathies. He can, or thinks he can, frame some sort of conception of "local congestion," "disorder of the liver," "suppressed gout," "overwork," "anxiety." &c., as causing his slight localised nervous symptoms. At any rate these explanations or these phrases are familiar to him. I think that the existence of any of these states gives no explanation of local and suddenly occurring nervous symptoms. These "explanations" are superficial, not simple. If a man have atheromatous arteries (blockable arteries) of all sizes, why should not slight and transitory symptoms be owing to blocking of very small arteries? Observe, the question of first importance in diagnosis is not as to the slightness or transitoriness of a symptom, but as to its localness; a local symptom must imply a local lesion of some sort. One reason for the frequent denial that local lesions exist in cases of *transitory* paralysis is that it is not widely known that there is Compensation in nervous organs, so that paralysis will pass off when the damage causing it is not altogether repaired. Thus, we exclude such so-called general causes as I have mentioned, and go on to consider special causes. At the same time it is only an inference that such slight and transitory paralytic symptoms depend on small foci of softening; for there is no, or practically no, morbid anatomy of such slight symptoms.

REPORT OF A

CASE OF POPLITEAL ANEURISM CURED BY PRESSURE.

BY STAFF-SURG. ALEX. TURNBULL, R.N., M.D.

(*Communicated by the* DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.)

IT appears that the subject of this case (S. I——, aged thirty-five, master-at-arms), in the execution of his duty, parted two men who were fighting, and in the consequent struggle caught his right foot in a ring-bolt, and severely twisted the right leg and knee-joint. This occurred on the 10th of December, 1874. As head of the ship's police, his duties at this season were of a very responsible nature; and though he still felt the effects of the accident, ultimately becoming lame, with œdema of the leg and foot, he did not come under treatment until the nineteenth day after the accident—viz., on Dec. 29th.

The patient is a large-framed, muscular, obese man, six feet in height, a free but not dissipated liver, and a history devoid of syphilis or other degenerative disease.

Dec. 29th.—Having spent a night of great suffering, the patient applied for advice this morning, when an aneurism was discovered filling the right popliteal space, and there was marked œdema of the leg and foot. The aneurism measures—length, 4½ in.; semi-circumference at centre, 6¼ in.; circumference of left knee, 15⅞ in.; right, 16½ in. The aneurism is posterior to the popliteal artery, and has a strong heaving pulsation. The contents of the sac are apparently still fluid, and the aneurismal bruit clearly audible. The posterior tibial and dorsal arteries of the right foot are hardly perceptible. No sign or symptom of arterial or cardiac disease exists elsewhere; pulse quiet, equable, soft, 80. Strict rest in bed enjoined, and patient instructed in the use of Signorini's clamp tourniquet to slow the femoral circulation, and prepare for the future treatment by arrest of the circulation through the aneurism.

30th.—Patient slept well after the hypodermic injection of a quarter of a grain of morphia. Experiences great relief from the intermittent use of the clamp tourniquet. He was placed on an air-bed, and the tourniquet carefully employed to avoid local irritation; on its removal, the part was dusted with fuller's earth, a piece of spongio-piline being always applied over the sites of pressure.

31st.—Patient shows signs of suffering from the restraint and confinement, having been accustomed to an active life. Average local daily temperature 80°; daily range 2° to 4°. Aneurism remains as on admission; there is, however, little or no œdema of leg.—4 P.M.: Most acute pain across dorsum of foot, apparently due to pressure of tumour on peroneal nerve; pulsation in aneurism strong and full; measurements unchanged; right knee partially flexed. Intermittent pressure, to diminish force of circulation, still employed with caution; hypodermic injections of morphia when pain is severe.

Jan. 1st.—Slept well. Intermittent pressure as before; diet generous and unstimulating; no stimulants.

2nd.—Having had a Lister's tourniquet made on board, and the patient become more accustomed to the confinement and use of instruments, I determined to arrest the circulation through the aneurism by the alternate use of Signorini's and Lister's tourniquets, the precautions noted on the second day being most carefully attended to. In 1868 I succeeded in curing a smaller popliteal aneurism by this method in four hours and a half; the case had been previously under treatment for some time by modified pressure.—8 A.M.: Applied Signorini's clamp over femoral artery about an inch and a half below Poupart's ligament, and Lister's clamp over ordinary seat of ligature; at intervals of half an hour or less, if pain arose, the pressure was removed, the other tourniquet having previously been applied. By these means the patient was not needlessly distressed, nor was circulation through the popliteal artery allowed.—Noon: Removed tourniquets. As it had been impossible to give constant medical supervision, it was discovered that pulsation had not been entirely suspended during the four hours. Subsequent experience in this case demonstrated the necessity of screwing up these clamps from time to time, as the soft tissues give under the pressure, and pulsation will often return in the aneurism under the same application of the clamp, which at first, and for many minutes, completely arrested it.—2 P.M.: Under my own supervision the tourniquets were reapplied alternately for four hours and a half, and I then experienced the difficulty mentioned of completely arresting the circulation through the tumour. The patient suffered much from the pain in leg and foot previously noted, but comparatively little from the immediate pressure of the clamps. On removing instruments, the aneurism felt more solid and the pulsation feebler, less heaving and expansive.—12 P.M.: Acute pain in calf of leg and across dorsum of foot; no œdema; no diminished temperature; subcutaneous injection one-third of a grain of morphia.

3rd.—A restless night; broken sleep; appetite poor; tongue coated; pulse 72-80; marked change in aneurism; pulsation decidedly feebler; tumour firmer and more solid. Patient confirms this from local sensations, and is much satisfied, entering thoroughly into the plan of treatment, and submitting most patiently thereto.—1 P.M.: Acute pain across dorsum of foot; hypodermic injection; flannel bandage.—2 P.M.: Reapplied instruments, the pain being relieved; removed clamps after two and a half hours' application under my own supervision; still a difficulty in entirely suspending pulsation in tumour; no appreciable difference in circumference of knee-joint on removing pressure; pulsation more feeble; clot evidently forming.

4th.—Slept without anodyne; patient's appetite poor; tongue coated; pulse 80. It was intended to discontinue instruments for a day, but at noon the pain in foot became so severe they were applied to slow circulation, and were thus employed for three and a half hours, under which treatment the pain ceased.—10 P.M.: Pain of foot returned severely. Ordered half a grain of morphia as a subcutaneous injection, with friction to foot.

5th.—3 A.M.: Still suffering greatly; unable to sleep. Again applied modified pressure with relief to pain, though slight consequent œdema of limb; this treatment continued for eight hours. The aneurism is increasing in solidity; the patient is observed to flex the limb more and more daily. Circulation through aneurism arrested by forcible flexion or extension of knee-joint. Moderate flexion to be employed, and maintained by slipper secured to waistband. Some slight tenderness at sites of pressure, which of late has been very constantly applied.—10 P.M.: Morphia hypodermically.

6th.—Slept well; treated this day by moderate flexion

only; no return of pain in foot. Appetite improved; patient in good spirits, becoming more accustomed to the confinement.

7th.—Slept well without an opiate; the condition of the tumour satisfactory; pulsation feeble; tumour more solid. Treatment this day: Moderate flexion and rest only.

8th.—Rest and moderate flexion.

9th.—Pulsation feeble and easily arrested by flexion.—9.30 A.M.: Forcible flexion attempted, but after an hour's treatment the aneurism was found to pulsate, and the patient requested the clamps might be substituted. Half a grain of acetate of morphia had been subcutaneously injected ere the treatment commenced.—10.30 A.M.: Applied clamps alternately, with a view to arrest circulation through the femoral artery, as on Jan. 2nd. Constant medical supervision could not be given, but the patient managed the instruments well, though not so as to arrest circulation entirely at all times. This treatment was continued for seven hours. On removing the tourniquets the pulsation in the aneurism was very feeble. The tumour had entirely lost the feeling of fluidity, and the sensation experienced might equally have arisen from any solid tumour situated over the popliteal artery. The aneurismal bruit, however, was still audible.

10th.—Passed a good night without opiate; moderate flexion maintained by slipper. There was some tenderness at sites of pressure. Moderate flexion alone employed this day.

11th.—Aneurismal bruit still audible. Treatment as yesterday to allow local effects of pressure to pass off.

12th.—6 A.M.: Applied Signorini's and Lister's clamps, as on the fifth day.—8 A.M.: Pulsation not entirely arrested; reapplied instruments, and under my own constant supervision and management thoroughly arrested the circulation through the artery until 3 P.M., when, on removing the tourniquets, no pulsation returned in the aneurism. Moderate flexion and perfect rest were maintained strictly for the next two days. During the prolonged arrest of circulation very little distress was experienced. The tourniquets were at first changed every thirty minutes, but later in the day every fifteen minutes. When not in use they were removed, and the compressed skin dusted with fuller's earth and exposed to the air. The patient could have continued the treatment if requisite, and made a good meal at the termination thereof. At noon the pulsation in the superior and inferior articular arteries around the knee-joint was well marked, and so much so was this the case in the popliteal space over the tumour that at first it was feared pulsation had returned in the aneurism. There was no resulting œdema of leg, or marked coldness. The flannel bandage, which had been constantly applied during the treatment, was continued, and the limb covered with a blanket, under which it gave a sensation of increased temperature, and perspiration ensued.

13th.—Slept soundly. "Feels as if he could get up and run." Condition of limb most satisfactory.

14th.—Removed slipper, and discontinued moderate flexion. Leg can only be partially extended.

16th.—Patient discovered standing on left leg, and kneeling on right knee, enjoying a "wash all over."

17th.—Allowed to sit in a Derby chair with foot rest; still unable to extend leg, owing to size of tumour, which now measures—length, 4 in.; breadth, by callipers, 2 in.

20th.—Moving about on crutches; leg slung by means of slipper and bandage passed over shoulders; still unable to extend leg; tumour solid, and diminishing in size.

23rd.—Detected a brawny induration of integument about 2 × 1½ in. in size, situated immediately below the internal tuberosity of tibia, and slightly overlapping the internal border of same bone. The indurated integument is divided into two parts by a well-marked sulcus, apparently in the line of the internal saphenous vein. There is no œdema of leg; the swelling is a little tender on pressure; there is no increased heat of part, but a vague feeling of fluctuation close to internal border of tibia. Patient's general health good; appetite good; sleep sound. Ordered to remain quiet.

25th.—Signs of suppuration more decided; no apparent connexion with consolidated aneurism. Opened abscess and evacuated an ounce or so of grumous fetid pus, deeply stained with blood; there was free arterial hæmorrhage from divided integument. The abscess was opened, and subsequently treated antiseptically by Lister's plan.

29th.—Since the abscess was opened there has been a slight sero-sanguinolent discharge when dressed, flowing most freely when pressure is made over the sulcus noted on 23rd. A probe was this day passed through incision upwards along this sulcus, or sinus, a distance of 3 in. It seems evidently the internal saphenous vein obliterated by thrombosis and subsequent suppuration.

30th.—Patient allowed to sit up in a chair with a foot-rest. Discharge from abscess almost nil. Continue antiseptic dressings.

Feb. 6th.—The abscess has ceased to discharge for four days. The induration of the integument is disappearing; the sulcus noted still apparent. The aneurismal clot has diminished considerably, and is now the size of a duck's egg. Extension of limb is nearly perfect. Patient moves about on crutches, and is commencing to put his foot to the ground.

Remarks.—In concluding the record of this case of treatment of aneurism by pressure, I would draw attention to the great advantage in such a method of qualified medical supervision being constantly at hand, and of taking every precaution to prevent the patient being distressed either locally or generally by the treatment.

In this case the treatment was suspended for two and on another occasion for three days, in order to let all uneasiness from pressure subside. Moderate flexion was certainly employed at those periods of rest, but more with a view to maintain perfect rest than to check the circulation; it caused no inconvenience to the patient.

Screw-pressure, unassisted by springs, requires most careful and constant watching, if the object be to stop the circulation. Pressure by weights or springs evidently must be superior to the means at my disposal.

At the date of these remarks (Feb. 10th, 1875) I am very sanguine that the patient may return to duty ere long, after being resurveyed by a medical board.

Zanzibar.

NOTE ON

THE TREATMENT OF SCARLET FEVER BY THE EXTERNAL APPLICATION OF COLD WATER.

WITH TWO CASES.

BY JOHN EDWIN EDDISON, M.D.,
PHYSICIAN TO THE LEEDS INFIRMARY, THE FEVER HOSPITAL, ETC.

(*The Cases reported by* DR. STERLL, *Resident Medical Officer at the Fever Hospital.*)

NOTWITHSTANDING all that has been written in support of the treatment of fever by the external application of cold, there can be little doubt that the value of this method, at any rate in the case of scarlet fever, is not yet fully appreciated by the profession generally. There is no novelty in the subject now, and no space need be occupied in referring to the practice and opinions of Currie in this country, or to the more recent publications of various physicians who, especially in Germany, have practised and strongly advocated this method of treatment.

The two cases reported in connexion with this paper are published, not because of any special feature about them, but particularly because they are ordinary cases, such as occur in every-day practice, and because they serve to show that this plan of treatment is as serviceable in such cases as it is in those special cases of unusually high temperature that have of late attracted so much attention. I am inclined to think that the published cases of "hyperpyrexia" successfully treated by cold have unfortunately led to the belief that the treatment may be very good in such special cases, but that it is not particularly useful in the ordinary cases that frequently come before every medical practitioner. The late Dr. Anstie, in particular, exerted himself to urge upon the profession the desirability, or rather the duty, of more generally adopting the method; but even his able advocacy has not been so successful as it deserved.

Scarlet fever seems, more than any other acute disease, to lend itself to this treatment. The patients, as a rule, are young, and therefore easily moved about, and the bene-

ficial results are generally more rapid than in the case of many other diseases.

All sorts of objections have been, and still are, urged against the use of cold in scarlet fever. Danger is said to arise from "driving in the rash," from internal congestion, from the rapid loss of body temperature and consequent depression, and it is also said that the risk of renal mischief is thereby increased. If it were proved that the occurrence of nephritis is more frequent after treatment by cold it would be a very valid objection to the practice of it, and the real truth can only be learned by an examination of a large number of cases. From my own experience I am inclined to disbelieve that any harm results in this way. The fear of the occurrence of nephritis from this cause originates no doubt in the generally accepted opinion that the affection of the kidneys so commonly occurring after scarlet fever is due to "draughts," or "catching cold," or to leaving bed too soon. I think this opinion is not founded upon sufficiently good grounds, and that everyone in the habit of seeing cases of scarlet fever must often have seen nephritis beginning before as well as after the patient has left his bed, and as often in cases kept in warm stuffy rooms as in those in which fresh cool air has been freely admitted to the sick chamber. "Catching cold" is made to do duty as a cause of so many conditions for which we can find no better explanation, that it is adopted at once and without hesitation in order to account for any otherwise inexplicable phenomena. There appears, at any rate, to be no good ground for assuming that cold bathing increases the chance of an attack of nephritis, and in the two cases here reported the urine did not become albuminous after repeated bathing. Objections on the ground of the trouble and increased expense in nursing are scarcely worth consideration if it is true, as I believe it is, that this mode of treatment is better than any other. The difficulty is perhaps less in treating scarlet fever than in dealing with other cases because the patients are usually young and easily lifted in in and out of the bath, but when from the weight of the patient or the weakness of the attendants it is impossible to use the bath, the patient may easily be packed in wet sheets, with or without pieces of ice placed here and there, or india-rubber bags or large bottles filled with ice may be placed round the patient. The bath gives better results than any other plan when it can be thoroughly carried out, and the most satisfactory way is to begin with the bath at 98° or 100°, and cool down gradually to about 70°. It is of course better that the temperature of the patient and of the water should be frequently taken, but the hand is generally a good enough guide as to the water, and the appearance of the patient always indicates the improvement in his condition. This is well illustrated in the case of S. F—— (aged eight), near the end of the fifth day. The little patient was then drowsy and delirious, the temperature being 104°, and three-quarters of an hour in a bath, beginning at 90° and cooled down to 68°, resulted in the cessation of delirium and drowsiness, and a reduction of the temperature (in axilla) to 95°. In the case of M. A. S—— (aged four), a similar bath for one hour reduced the temperature from 105·3° to 95·6°. There was no dangerous depression or bad symptom whatever from this low temperature. In scarlet fever, as in other allied disease, the cardiac impulse and the character of the heart sounds are safer guides as to the condition of the heart and circulation than is the pulse at the wrist, the latter being often very deceptive.

In the case of S. F——, it will be noticed that the temperature rose again and again after removal from the bath, the rise beginning sometimes immediately, at others after an hour or less. This rapid rise is usual in severe cases, and the benefit derived seems always to be in proportion to the length of time during which the high temperature is warded off. It is worth consideration whether it will not ultimately turn out to be a better plan to keep the patient in the bath for many hours, even for a day or longer if necessary, cooling the water very gradually down, and maintaining it at whatever degree is found to keep the patient's temperature nearest to a healthy point. In the treatment of diseases or injuries of the skin, no evil, but, on the contrary, great good results from much more prolonged baths; and it seems far more reasonable to prolong the period of immersion than to take the patient out and allow the temperature to rise, to be again and again reduced in the same way. I am well aware that unpractised writers like myself often seem to be regardless of the time of their professional brethren, but I trust that the above remarks will not be considered too long nor be found altogether useless. The notes of the cases are, I think, sufficiently detailed and clear to need no further explanation. The first case was one of more than usual severity; and the second, though not quite so serious, was yet by no means a mild case, as a temperature of over 105° and a pulse of extreme rapidity indicate.

I should add that all the baths were begun at a comfortably warm temperature—between 90° and 100°,—and cooled down slowly to about 70°, or sometimes a few degrees below that.

(To be concluded.)

A NEW MODE OF TREATING CERTAIN TUMOURS OF THE LYMPHATIC GLANDS.

BY S. MESSENGER BRADLEY, F.R.C.S.

AT the recent Edinburgh meeting of the British Medical Association a paper of mine was read in which I advocated the subcutaneous injection of iodine in certain cases of lymphatic tumours, and as I have since then employed this method in several fresh cases I have thought that a brief account of the mode of procedure might prove interesting. It must be premised that I do not speak of lymphatic tumours generally, but of certain kinds only; thus I do not refer to syphilitic or carcinomatous affections, or to the infectious or soft form of lymphomata, but confine my attention to three groups. First, true hypertrophies of the lymphatic glands, with or without a strumous diathesis; second, strumous hypertrophies—i.e., cases of cellular hyperplasia *plus* caseous deposit; and, third, hard non-infectious lymphomata, which present many points of resemblance to the first groups, and, indeed, are often only distinguishable in being multiple.

Now, there is perhaps nothing more common than to paint iodine over all the above-mentioned tumours unless it be the disappointment which results. This, at least, is my experience, the result apparently being the same whether the iodine is painted indiscriminately over the whole gland or whether it is applied, according to Furneaux Jordan's advice, over the contiguous lymphatics rather than over the gland itself; and yet all that seems to stand between this treatment and success is the thin skin which intervenes between the gland and the pigment.

The first case in which I injected iodine into a tumour did not appear very promising, though it proved perfectly successful. It was an encapsulated tumour, about the size of a large walnut, situated beneath the lower jaw, which I should have removed with a scalpel, had I not once had some unpleasant hæmorrhage in a precisely similar case; and as the patient in the present instance lived at some distance, I resolved to try to procure absorption before resorting to extirpation. *The tumour almost disappeared with the first injection*, and after one more it could not be at all detected. I was pleased with the result, because it appeared to me to be so desirable to adopt such a plan at one's consulting-rooms, and in the out-patient room of the hospital, instead of using the knife, which is always more or less terrible to the patient, and which is sometimes, in the most careful hands, followed by unfortunate results. Since the case I mention I have been in almost the daily habit of employing iodine in this manner, and I think I may venture to affirm that, by properly selecting cases, a successful result may be assured, while there is no doubt that an indiscriminate use of the remedy will be productive of disappointment. The best cases are those where a single cervical gland is hypertrophied in an otherwise healthy (adult) subject. Five or six injections of the simple tincture of iodine (five to ten minims at a time, according to the size of the tumour), at intervals of about four days, generally effect a cure. The earlier stages of strumous hypertrophies are also very successfully treated by this method,

as are the small hard multiple lymphomata; but in the later stages of strumous disease of the cervical glands, where the tumour is broken down into a mass of caseous matter, and the neighbouring skin is blue and undermined, no good results follow from the injection of iodine; and, indeed, these cases are best treated by a careful excision of the disorganised and degenerated glands. I have also recently employed iodine injections in a large and hard fibroid bronchocele, which had been treated unsuccessfully by the internal administration of the drug. The tumour was not only inconvenient from its size, but had almost destroyed the voice, and so pressed on the trachea as to deflect it to the right side of the neck. The case is still under treatment, but the first two injections of ten minims of iodine were followed by the diminution of an inch in the girth of the neck. By parity of reasoning we may expect this method to prove serviceable in uterine myomata and allied growths, but it is to its value as a remedial agent in cases of lymphatic enlargement of the cervical glands that I especially wish to call attention, and I may briefly summarise my results on this head by a tabular statement:—

1. *Cases of cervical tumours to be treated by injection of iodine.*
   - *a.* True hypertrophies of the lymphatic glands without strumous admixture.
   - *b.* Strumous hypertrophies before breaking down.
   - *c.* Hard lymphomata.
   - *d.* Encapsulated cervical tumours, as a tentative operation.
2. *Cases of cervical tumours to be treated by incision.*
   - *a.* Strumous glands which have broken down into pus, with or without previous treatment by injection.
3. *Cases of cervical tumours to be treated by excision.*
   - *a.* Strumous glands infiltrated with caseous matter, which may be rocked to and fro upon a base of degenerated cellular tissue, with a margin of blue undermined integument.
   - *b.* Encapsulated tumours which have resisted the treatment by injection.

Manchester.

OXALURIA.

BY JAMES REOCH, M.A., M.B.

(*Concluded from page* 310.)

THESE earthy salts are of three chief kinds—carbonates, phosphates, and oxalates. The carbonates may be dismissed, because, though common in decomposing urine, they do not appear in ordinary urine when voided. The phosphates also, though always present, never seem to be in sufficient quantity to exhibit insolubility in alcohol. If the average quantity of lime be 3½ grs. in 52 oz. of urine, it will be found on trial that two or three times this amount, in the state of acid phosphate, will give only a faint turbidity when alcohol is added to its watery solution. We are therefore thrown back on the oxalates as the chief source, if not of the white precipitate which immediately appears when alcohol is added to urine, at least of the permanent turbidity which results on shaking the mixture. But this is never a good way of obtaining oxalates; for, being thrown down quickly, they are in the form of granules, and never assume the envelope shape, however long they are afterwards allowed to stand. The alcohol ought always to be added gently to the top of the urine, and the whole allowed to stand for twenty-four hours. If the urine possesses oxalates in abundance they will of course be thrown down without the alcohol, and if it has none at all the alcohol cannot make any appear; but the vast majority of urines are placed between these extremes, and therefore give few or no oxalates unless alcohol be added. It is easily calculated that an ordinary microscopical preparation covers 10,000 times the surface which is taken in at one field of view under a power of 300 diameters; but, since it is rapidly passed over, suppose it to be only 100 times the size, and the effect of alcohol in precipitating oxalates will be appreciated when it is said that, of 41 urines examined, there was an average of several oxalates in each field of view in nearly every one to which alcohol was added, whereas without it there was often scarcely an oxalate to be found in a whole preparation. To be more particular: from 10 cc. to 15 cc. of 36 specimens of urine from the same person, taken indiscriminately at three or four different periods of the day, were put into some test-tubes; half of them had 3 cc. rectified spirit added to them gently; the next day the excess of urine was poured off, and the few drops at the bottom examined microscopically. Where oxalates were seen, their average size and number were noted and reduced to the uniform standard of $\frac{1}{5000}$ in. in the side. The following table expresses the comparative results obtained:—

	No spirit.		Spirit.
No. of urines examined	36	...	36
No. of times oxalates were found in twenty-four hours	30	...	35
No. of times one average oxalate of $\frac{1}{5000}$ in. was found in each field of view	16	...	33
No. of times ten such oxalates were found in each field of view	1	...	15

This table indicates the effect of adding alcohol to urine, and it may be here observed that this explains a well-known fact which has not been hitherto fully accounted for. Every surgeon knows the evil effect of alcohol in cases of stricture, but the cause is not so clear. Congestion of the mucous membrane is an unsatisfactory because merely theoretical explanation, but the greater tendency to precipitation of oxalates explains matters perfectly. If a crystal of uric acid or triple phosphate be gently pressed under the microscope it will be reduced to powder, but an equal or even greater pressure has no effect on oxalates; they are therefore comparatively hard, and as they present six solid sharp angles, each of which is finer than the sharpest needle, they must inevitably tend to irritate the already diseased bladder and urethra. But, however this may be, the fact remains that addition of alcohol to urine in a gentle manner causes increased precipitation of oxalate of lime, and this may serve to throw some doubt on the alleged fact that carbonated drinks increase the amount of oxalates. It is natural to suppose, seeing the almost universal prevalence of oxalic acid in the vegetable kingdom, and its simple relation to CO_2, that it could easily be formed from CO_2; but this is not the case, and the facts above related show that it is to the alcohol, and not to the CO_2, we must look for an explanation of the oxalates; not that the alcohol forms the oxalates in any way, but merely that it throws them down more completely.

The alcoholic method of analysis may be applied to determine the amount of oxalates present in the urine. Thirty specimens of different urines (10 cc. to 15 cc. of each) gave an average of twelve oxalates of $\frac{1}{5000}$ in. in each field of view. All the oxalates were in about two to five drops at the bottom; there might therefore be from 20,000 to 100,000 of such crystals in 15 cc., or about 2,000,000 to 10,000,000 in 52 oz. of urine. The whole quantity probably does not nearly amount to 1 gr. per diem; but it must be confessed that the absolute measurements obtained by this method involve some data open to question, yet comparative results of great value may be obtained. Although, therefore, not able to give exactly the quantity of oxalates passed per diem, the following results give the comparative quantity at different periods. Ten specimens of "urina sanguinis" gave an average of 8¼ oxalates of $\frac{1}{5000}$ in. in each field of view, whereas ten specimens of urine after breakfast on the same days gave an average of 22 similar crystals. They appear therefore to be increased by food, but in a very irregular manner, as the following table will show.

Urina sanguinis.	Urina cibi (same day).
17	5
15	15
6	13
12	130
5	2
4	0
2	26
4	4
18¼	14½
2½	9
Average 8¼	22

Here the variation of the oxalates in urina sanguinis is only from 2 to 18, whereas in urina cibi it is from 0 to 130. This is, no doubt, partly due to the more constant composition of the former, and its being more typical of the whole urine and less liable to sudden variations. But there can be no doubt that oxalates take some time for elimination: thus, the abnormally high specimen of urina sanguinis, marked 18½ in the above table, was from a case where some rhubarb had been taken on the previous day, about seven hours before bedtime. Possibly this is also expressed by 14½ for the urina cibi of the same day, and if so it will be difficult to judge of the influence of various articles of food on the production of oxalates, since the latter may be retained for some time within the system. From the same cause it is difficult to say what is the real source of the oxalates found in urine. Nearly all plants contain a certain amount of oxalic acid, though whether they manufacture this for themselves or obtain it ready formed from the soil, in many cases, does not appear; but whether this would account for all the oxalates of the urine is very doubtful, and the more so as there are many animal products from which oxalic acid can readily be obtained by decomposition. The chief of these is uric acid. There can be no doubt that uric acid is easily oxidised. The sum of its elementary constituents is 168; but in 20 experiments on its solution in soda it seldom gave more than 140 or 150 after ten minutes' boiling; and if this soda solution be acidified by acetic acid and filtered, so as to separate the remainder of the uric acid, a little oxalic acid can be found in the solution by $CaCl_2$, though almost none could be found in the original uric acid treated with soda in the cold. Though there can be little doubt, therefore, that a small quantity of oxalic acid is readily derived from uric acid, even by the simple oxidation of boiling, yet it does not appear that this process takes place at ordinary temperatures; at any rate, uric acid seems less readily decomposed than urea, for urate of ammonia is a common precipitate in ammoniacal urines, due to the $(NH_4)_2CO_3$ produced from the urea giving up its NH_2 to the precipitated and dissolved uric acid. Moreover, the experiments described at the beginning of this paper seem to show that this process does not take place as a fact at least within a reasonable time to account for deposited oxalates; but these experiments show nothing as to what may go on within the body itself, and it is therefore possible that uric acid oxidised within the body may give rise to oxaluria; but as there are so many other products from which it may be obtained a large number of facts will be required to prove this point. The most common form in which oxalates appear in the urine is the transparent flattened octahedron, where a line drawn between the two apices through the crystal is not more than half the length of one of the sides; they must therefore rest upon one of their faces, and thus by no possibility can the two apices be seen in the same straight line; they therefore appear envelope-shaped. But if the distance between the two apices is much greater, as it sometimes is, they can no longer rest on one of their faces, but lie upon one of their sides, and appear regular octahedrons. The greatest abnormalities of form are seen in the scum of urine, which often contains abundance of oxalates after the first few days. The majority of crystals deviate from the usual shape, some even appearing as dodecahedral; but they are usually smaller than at the bottom, and are deficient on one side or edge, doubtless from the crystallisation taking place at the surface, where it is exposed to disturbance from the air. It is not easy to explain why oxalates should appear at the surface of urine; but uric acid and triple phosphate do the same. It is probably, therefore, due to the capillary attraction of the innumerable vibrios which cover the surface, and which must cause some of the water evaporating from the surface to leave its salts behind entangled amongst them; but it must be confessed that the vibrios sometimes appear too few to support the weight of crystals superimposed.

College of Medicine, Newcastle-upon-Tyne.

THE Board of Trade has again revised their scales of medicines and medical stores for emigrant ships. Two scales are now officially published, one to be used on North Atlantic steamships, when the voyage does not exceed thirty-seven days, and the second on all other passenger ships sailing under the Emigration Acts.

A SUCCESSFUL CASE OF OVARIOTOMY.*

BY W. EASBY, M.D.,

SURGEON TO THE HOSPITAL FOR SICK CHILDREN, DARLINGTON.

MRS. B——, a widow, aged fifty-six, first consulted me on Nov. 14th, 1873. She had enjoyed good health until two months previously, when she was seized with a pain in the right side. This lasted for two or three days, when it passed off. Since then she had not felt well. She complained of dyspnœa, and thought she was getting stouter. Appetite fair; bowels regular; urine scanty and full of lithates, did not contain albumen; pulse quick; second sound of heart rather prolonged. The skin was rather jaundiced. The abdomen was distended with fluid, and was dull upon percussion all over. The distension increased until January 4th, 1874, when I performed paracentesis abdominis, when eleven quarts of claret-coloured fluid were removed. After the abdomen was thoroughly emptied I could feel on the left side in the iliac fossa a tumour the size of an egg. It was freely movable, nodulated, and not tender on pressure. I was at once able to diagnose a multilocular ovarian tumour. During 1874 she was tapped twelve times. After each operation pressure was applied to the abdomen, and she took internally the muriated tincture of iron, and occasionally a few doses of Parrish's food. After each operation her recovery was rapid, and she never had any pain. Her general health kept fair, but not good enough, in my opinion, for operative interference. Towards the close of the year the cyst required emptying every fourteen days, and the fluid had changed from a claret colour to that of thin gruel. The largest quantity I removed was fourteen quarts. The solid part of the tumour had also increased in size.

As matters were getting almost daily worse and the only prospect for my patient was a miserable death in a short time, I proposed ovariotomy, to which she consented without any hesitation, and having secured the assistance of Drs. Fothergill and Middlemiss of this town, I operated on Jan. 31, 1875. Temperature of the room about 70°. Dr. Fothergill administered chloroform, which she did not take very well; two or three times her pulse got feeble and almost stopped, her jaw also dropped; when the flannel upon which the chloroform was administered was removed she rallied, but great care required to be exercised, and she was only kept very slightly under its influence. An incision four inches in length was made three inches below the umbilicus extending downwards to the pubes, and the sac carefully dissected down to. The adhesions were few, principally near the site of the tappings; these were easily broken down. One adhesion in the right iliac region was very firm, but after some trouble it gave way. The hæmorrhage from the separation of these adhesions was very trifling, no ligatures being required. Unfortunately, during the separation of some of them, the cyst was ruptured and the fluid escaped; very little of it, however, passed into the abdominal cavity. The pedicle was six inches in length, one and a half in breadth. It was secured by a double antiseptic catgut ligature passed through the centre and tied on each side; another similar ligature was firmly tied above the first, this was passed round twice and the two effectually prevented any hæmorrhage; the pedicle was then divided and dropped back into the abdomen. The tumour was multilocular and grew from the left ovary; emptied of fluid it weighed 2 lb. 9 oz.; the solid part of it was the size of a large kidney, and consisted of several large and small cysts varying from that of an egg to some very little larger than a pea. The edges of the wound were brought together by three deep sutures of thick silk; these were passed through the peritoneum. Between these were three superficial wire sutures. A large compress of marine lint was placed next the wound and over this a flannel bandage lightly pinned. A half-grain morphia suppository was pushed into the rectum and she was then removed to bed and covered with warm blankets; hot bottles were applied to the feet and sides of the chest.

* Read before the South Durham and Cleveland Medical Society.

She rallied well from the chloroform, which I may here say was given from a drop bottle, and the quantity used was seven drachms, the operation lasting about seventy minutes. During the remainder of the day she made no complaint, except of smarting pain in the abdomen. She never had any vomiting or retching, and when I left her at 9 P.M. she said she was quite comfortable. Pulse 110; temperature 101·2° F.; her temperature after the completion of the operation being normal.

Feb. 1st.—Has had about four hours' sleep during the night. Pulse 106; temperature 99·4°. Beef-tea enema. Catheter used; has no pain, no sickness; complains of a little soreness of the body. Enema repeated at bedtime.

2nd.—Had another good night. Wound dressed, which looks well; no pains or sickness; soreness of body much relieved. Pulse 100; temperature 98·4°. Had enema twice.

3rd.—Allowed her some milk by the mouth. Warm water enema was given to relieve the bowels. In the evening her temperature was 99·8°; pulse 116. Is taking beef-tea and milk freely. No sickness or pain.

4th.—Has had a fair night. Temperature 100·8°; pulse 120. Is suffering from vesical catarrh; urine full of mucus, and is passed with difficulty. Is taking beef-tea and milk freely. For the vesical catarrh I prescribed infusion of buchu, and hot fomentations were applied to the vulva and region of the bladder.

5th.—Slept well all night. Temperature 100°; pulse 128. Asked for fried sole to dinner. Removed sutures. Wound is healed, except about the eighth of an inch at the upper end.

6th.—Slept well all night. Is taking jelly, beef-tea, and milk, and a little champagne. Pulse 100; temperature 100·8°.

8th.—Still better; has no pains; can turn easily in bed.

12th.—Not so well; skin hot. Pulse 130; temperature 102°. Has no abdominal pain.

13th.—About the same; had a fair night; no pain.

14th.—About 5 o'clock A.M. the patient and nurse were alarmed by a gush of pus from the wound. There must have been about forty ounces; it was quite free from smell. In the evening her pulse was 106; temperature 98·4°.

15th.—Has passed a good night. Pulse 90; temperature 98·4°.

17th.—Got up for the first time, and was able to sit for an hour; wound is still discharging.

Since the last date she has made a good recovery, and is now able to follow her household duties; has improved very much in appearance, and had it not been for the cold weather would have been out of the house. The first two days after the operation all nourishment was given by the rectum, and the bladder relieved by the catheter. When all danger of vomiting had passed away I allowed her food by the mouth; this was the fourth day after the operation. No sponge was introduced into the abdominal cavity; a little fluid and blood were squeezed out by external pressure. We had no trouble with the intestines, only two inches of the small bowel being visible after the cyst was withdrawn. The cicatrix has now contracted to about three inches in length, and is barely visible. I ought to give my patient the credit of being one of the calmest women I ever met with, and her following out carefully my directions, with the excellent nursing of her daughters, have greatly contributed to her recovery, for which I need hardly say she is very thankful.

THE CHOLERA IN SYRIA.—The latest telegraphic advices which have reached the Sanitary Board in Constantinople indicate rather a diminution than otherwise, and especially in certain localities, of the cholera outbreak in Syria. At Damascus, from the 1st to the 8th ult., 51 new cases had occurred, and from amongst these and previous attacks, there had been 101 deaths. At Antioch, on the 1st and 2nd of August, there were 6 fresh cases and 4 deaths; no further attacks or deaths have taken place since the 2nd. At Aleppo, from the 2nd to the 7th ult., there were 152 cases and 104 deaths, and at Beyrout, within the same period, 69 cases and 45 deaths. At Lattakia, on the 5th ult., 3 attacks and 1 death occurred. Four cases of cholera are reported from Mount Lebanon, and Rustem Pasha, the governor of the mountain, has ordered all available sanitary measures to be resorted to.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

CASES ILLUSTRATIVE OF SOME OF THE DISEASES OF THE RECTUM.

(Under the care of Mr. T. BRYANT.)

WE commence this week a series of cases illustrating some of the diseases of the rectum. The series will comprise cases of hæmorrhoids, prolapse, stricture, and cancer.

CASE 1. *Internal hæmorrhoids; sloughing; cure.*—(The following notes were taken by Mr. T. F. Pedley.) Joseph M——, a brewer's drayman, of good health, aged thirty, was admitted into Job ward on the 25th June, 1874, with a large portion of bowel protruding from his anus. It was very painful and bled a good deal when his bowels were opened, the motions being passed with great difficulty. He had had pain and slight bleeding on passing his motions for nine months. This increased, and, four months after, he became a patient in St. Thomas's Hospital, where he remained three weeks, going out much better; but the complaint returned, and he lost much blood every time he defecated. He seemed a strong, healthy man; was married, and had four children.

As he had been much confined in his bowels since admission and had great pain, he was ordered, on the 29th, confection of senna and also castor oil, after which the bowels were moved and the pain became less.

July 3rd.—The external folds disappeared quickly, and the man felt much better, the bowels being well opened.

6th.—The folds of mucous membrane had disappeared, having been healed by an entirely natural process, and he left the hospital cured.

CASE 2. *Prolapsus of rectum; removal by galvanic cautery; improvement.*—(The following notes were taken by Mr. C. G. Lee.) Mary H——, a servant, single, aged thirty-eight, of good family history, was admitted into Lydia ward on the 5th July, 1873. Three years before admission she had a difficulty in passing her motions; they were in the form of hard lumps and caused her a great deal of pain, both in the act of passing and afterwards. She continued in that condition for six months; she was otherwise well. She was then taken ill, lost a great deal of blood from the bowel and was unable to pass anything; she had castor-oil enemata, but her bowels came down after every motion and she continued to lose a great deal of blood. She always was obliged to have injections to relieve her bowels. Her abdomen was very prominent.

July 14th.—The bowels were found on examination to be empty, although they had not been moved since her admission. She was ordered two ounces of the compound senna draught. The following morning they were slightly moved, but she passed blood after the motion. She seemed better.

16th.—She took one ounce of castor oil, and her bowels were moved without blood.

19th.—The patient looked better; her bowels were opened, but the motions were small and hard. She used an injection of soap and water and felt much relieved; her bowels were very sore, but she passed no blood.

22nd.—She was not so well; her bowels had not been opened after the injection as usual. She did not sleep well. Chloroform was administered; the extruding parts of the bowel were grasped with a clamp in two sections, right and left, which were cut off and the base well burnt with galvanic cautery.

23rd.—She looked very comfortable, but said the bowel felt very sore. She passed some small motions, with clots of blood, and did not sleep at all well. She said the bowel came down with the least movement; it was put up twice. Pulse 111; temperature 100·5°.

24th.—Patient woke up at 4 A.M. with cold sweatings and shivers. She felt very weak, and had hardly any appetite;

her bowels had not been opened, and came down but very little. Pulse 105; temperature 99·6°.

26th.—She had again cold, clammy sweats, followed by burning heat, and some pain over her stomach. Hot flannels were applied, and she passed a great deal of wind. She had not had her bowels opened since the 23rd, and complained of a lump in the right groin, which was very tender; it was about the size of a nut. No impulse could be felt when she coughed.

August 2nd.—She has remained in about the same state during the last few days. She felt great pain across the lower part of her abdomen, and had hot flannels applied. She complained also of sickness.

4th.—Her bowels had not been opened yet. She had a castor-oil injection, when four or five hard lumps came away. The pain had increased since her bowels were opened, and she was very sick. She had not much appetite, but her water passed easier.

5th.—She felt stronger, and her appetite had improved, but she could keep nothing down—it returned about an hour after her meals. She slept, however, without an opiate.

7th.—Sickness continued. She felt very weak, and complained of pain across the pit of her stomach. Her bowels were moved after an injection; the motions were very hard and lumpy, and slightly tinged with blood. The alternations of heat and cold returned, and she ate very little.

9th.—She was taking compound chinchona mixture, and felt a little better, but still very sick. Her bowels were well relieved after an injection, the motions being about the same, but without blood.

11th.—The patient was improving, and appeared more cheerful, but very sick. She sat up for the first time. No blood came away with the motion passed after injection.

12th.—She was better; the bowels had been again opened after injection; the motions were normal; had no pain, nor was any blood passed.

19th.—The patient was still improving, her bowels having been moved after injections, and without blood. Her appetite also was better, although she was sick in the night. She continued to do well, but the bowels were never opened without an injection. She seemed very comfortable, still the bowel came down a little.

26th.—She left the hospital.

CASE 3. *Very extensive prolapsus recti; application of galvanic cautery in stripes; cure.*—(The following notes were taken by Mr. Cusack.) Anna W——, a married woman, aged forty, of fair family history, was admitted into Lydia ward on Aug. 19th, 1874, with a large mass of bowel protruding from the anus, about the size of a cocoa-nut. She felt much pain, and seemed weak. She had suffered for fifteen years from the bowel coming down, but it had not given her so much pain; it bled very much at times, and she was also troubled with tapeworm and great relaxation of the bowels.

Aug. 25th.—By means of the electric cautery the surface of the protruding mass of bowel was cauterised in a linear direction, the stripes being made obliquely, and then returned, some small portions of mucous membrane above the sphincter being removed as the sphincters were found to be very feeble and relaxed. There was a little hæmorrhage the day after the operation, but it was stopped with ice. Temperature 99°.

Sept. 2nd.—The prolapsus had not come down again, but the bowels had not acted for some days. She took some castor oil, which relieved her, there being no blood with the motions. She complained of feeling weak, and also of pain when her bowels were opened. She had also a feeling of giddiness and lightness in her head. She was ordered on the 14th fifteen-drop doses of tincture of the perchloride of iron, and her pulse, which had been rather small (72), became much firmer (90).

Her bowels still being inactive, thirty grains of sulphate of magnesia was added to her medicine, when she became very relaxed, and she had no power at all to retain her motions. This difficulty remained some days. On the 22nd the prolapsus came down again about an inch, and continued to do so when her bowels were opened; but she has been able to go out in the air and gained strength, so that she left the hospital on Oct. 3rd.

Dec. 7th.—This patient came to Guy's to report progress. She said the bowel never came down now except when at stool, and then only when straining, and a very little. She never lost blood.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

CASES OF GLAUCOMA.

(Under the care of Mr. POWER.)

THE following cases, for the notes of which we are indebted to Mr. G. Ernest Alford, are the commencement of the record of a series of cases of glaucoma that have recently been under treatment at the above-named hospital. Although the results may not appear brilliant, they were under the circumstances good, and their publication forcibly teaches us one lesson—namely, the imperative importance of operating as early as possible in such cases. But early operation implies early diagnosis, and on this point it must be confessed much ignorance still prevails—not, of course, on the part of ophthalmic surgeons; yet very little experience will suffice to show that few diseases are more readily recognisable than glaucoma.

CASE 1. *Acute glaucoma; attempted iridectomy; slight temporary relief.*—E. E——, aged fifty-six, a labourer, from Gravesend, was admitted on December 21st, 1874. He stated that his right eye had been getting dim for the last six weeks, and that he had had violent paroxysms of pain in it at intervals during that time. Both the dimness and the pain had much increased during the last week.

The iris was found to be widely dilated, so that it could scarcely be seen at all. Tension very high; globe of stony hardness, the pupil having the greenish opaque look very strongly marked. The man could not distinguish light from dark, much to his surprise, for he did not know that he was blind until told to cover the left eye. Fundus invisible, owing to the haziness of the vitreous. Left eye quite normal.

Having previously warned the patient that an operation would probably do little more than relieve the pain, which was very intense, Mr. Power endeavoured to perform an iridectomy on the right eye, under chloroform, but owing to the extremely dilated condition of the iris he was unable to seize it, and so was obliged to be content with lessening the tension by the escape of the aqueous through the incision. He was sent to bed, and both eyes covered for twenty-four hours. He had no more pain that evening, and slept well for the first time for many nights. On the second day he was allowed to get up for a short time, and one eye was uncovered. He had had no pain since the operation. The tension was decidedly less than formerly. He went out on the 24th of December quite free from pain, and just able to distinguish light from dark.

He again attended as an out-patient on January 18th, 1875. He could then just distinguish light from dark; the tension was slightly above that of the other eye; the pupil widely dilated as before, and he had had no more pain from it. The media were hazy, preventing a good examination of the fundus.

On Feb. 1st he was in the same condition.

When last seen, at the beginning of May, the tension was still greater than normal, and he was unable to see light. He said he occasionally had some pain in the eye, but very little.

CASE 2. *Simple glaucoma; iridectomy; partial recovery.*—Edward T——, aged fifty-six, a labourer from Westminster, was admitted on the 2nd of January, 1875. He complained of pain in his right eye and temple, and periodic mistiness of vision. He said the eye had been getting dim for two years, but that it had got rapidly worse during the last few weeks. The tension was slightly increased; no cupping was visible; his vision was $\frac{2}{3}$. An iridectomy had been performed on the left eye for glaucoma two years previously, and with it his vision was $\frac{2}{3}$. A solution of atropine (four grains to an ounce) was instilled daily, and he was ordered a mixture containing quinine, aconite, and colchicum. On January 11th he had so much improved that he was sent out for a week or two.

He again appeared on Feb. 13th, and was readmitted. He had had more pain in the eye. The fundus was just visible through a hazy vitreous, there was slight cupping of the optic disc, and the tension was a little above the normal. His vision was $\frac{1}{10}$ with the right eye and $\frac{1}{100}$ with the left. Unfortunately he came in too late for operation

that day. He improved for a few days, and then had another relapse, so that Mr. Power did an iridectomy upwards, without chloroform, on Feb. 19th. Atropine was instilled, and a pad and bandage applied. It was dressed daily, and some atropine dropped in. He had no more pain, and on March 3rd his vision was $\frac{1}{10}$ with the right eye and $\frac{1}{8}$ with the left. The vitreous was clear, and there was no sign of cupping. On March 5th it was still improving: V=$\frac{1}{10}$ with a convex 36 glass, and $\frac{1}{12}$ without any glass, and he could read No. 4 Snellen with + 16. He has not been to the hospital since.

CASE 3. *Simple glaucoma; iridectomy.*—Mary N——, aged sixty-five, married, with eight children, was admitted Jan. 15th, 1875. She stated that the sight of the left eye had been getting dim for nine months, occasional obscurations, lasting for a few minutes, coming on generally whilst at needlework. Her sight has been weak for the last twenty years, caused, she thinks, by suckling too long, and she has worn glasses during that time. Caught cold on Christmas day, and since then she had had severe pain in the eye and down the side of the face, accompanied by headache, and always worse at night, preventing her sleeping well. Very subject to rheumatic gout for years, all her fingers and toes being thickened and distorted at the joints. Her bowels have been very irregular for three years, generally constipated for days together.

On admission there was no perception of light in the left eye; slight sclerotic congestion; iris greenish, immovable; pupil dilated; tension much increased; T + 2; vitreous too hazy to allow of examination of fundus; pain in eye acute, constant, and lancinating.

Under chloroform Mr. Power performed an iridectomy upwards in the usual way. Atropine was instilled, and a pad and bandage applied. In the evening the pain was less than it had been for three weeks. Atropine was instilled daily, and she had no more pain. The tension was normal; the incision healed by cystoid cicatrix with considerable protrusion, which was somewhat lessened by a firm compress. She went out on Jan. 25th.

On Feb. 8th the eye was in the same condition, but more tense than when she went out. She had had no more pain. There was still no perception of light, and the humours were too hazy to enable one to see the fundus. It was in the same condition on March 5th.

LEICESTER INFIRMARY.

DISLOCATION OF THE SIXTH CERVICAL VERTEBRA FORWARDS, WITH FRACTURE OF RIGHT TRANSVERSE PROCESS AND TIP OF LEFT TRANSVERSE PROCESS; FRACTURE ALSO OF BOTH LAMINÆ; DEATH ON THE SEVENTH DAY.

(Under the care of Mr. BENFIELD.)

ONE of the chief features of interest in the following case was the great variation in temperature, the lowest degree observed being 94·2°, the highest 106·4°, giving a range of 12·2°.

David W——, aged forty-six, a carpenter, was admitted on May 29th (at noon), 1875. The patient, who was a heavy man about 5 ft. 10 in. high, fell from Blaby Bridge, a distance of 25 feet, while removing iron bolts from sidings. On admission there was impaired sensation and mobility in both arms, complete loss of sensation from lower end of sternum (extending upwards three inches behind) to inferior extremities. He could not move the legs in the slightest degree, and tickling the feet did not excite any reflex action. The breathing was chiefly abdominal. The skin felt cold to the touch, and the patient complained of cold. Well-marked priapism. At 2.15 P.M (two hours and a quarter after admission) the temperature was taken, and found to be 96·5°. At 7.15 it was still below normal, but at 9.15 (twelve hours after injury) it had reached 99·2°. The temperature during the day had been as follows:—At 2.15 P.M., 96·5°; at 3.15, 94·6°; at 4.15, 95·6°; at 5.15, 96·4°; at 6.15, 97·2°; at 7.15, 98°; at 9.15, 99·2°; at 10.15, 100·1°. At 10.40 P.M. the pulse was 68, full; respiration 20. Patient complained of the arms being very painful—pins and needles sensation. Right wrist was swollen from severe contusion. The catheter was passed; not more than four ounces of urine in bladder.

May 30th.—The temperature at 12.15 A.M. was 100·4°; at 2.15, 101·2°; at 4.15, 102·2°; at 8.15, 102·6; at 9.30, 103·2°. At 9.30 A.M. the pulse was 96, full; respiration 32. Face flushed and hot to feel; conjunctiva congested; skin of neck and ears also congested; carotids throbbing; tongue dry and fissured longitudinally. Patient was lying with arms semiflexed; if put straight, they soon assumed the flexed position. He could flex, but not extend, the forearm, but was not able to raise the arm from bed. No increased loss of sensation; had had no sleep during night.—10 A.M.: Mr. Benfield visited patient, and ordered one grain of calomel every four hours, with ice-bag to spine. The temperature now began to fall suddenly. Thus, at 10.50 A.M., it was 102·6°; at 1.15 P.M., 98·6°; at 3.15, 95·6°; at 4.15, 94·2°. The two armpits were now both taken, and with the following result: At 5.15 P.M.: right, 97·4°; left, 100·2°. At 6.30: right, 98·6°; left, 100°. At 7.30: right and left, 100°. At 8.30: right and left, 100°. At 9.30: right, 97·8°; left, 100·4°. At 10.30: right, 99·4°; left, 100°. At 11.30: right, 100·2°; left, 100·4°. At 4.15 P.M.: Pulse 54; respiration 20. Loss of sensation had increased, and extended from third costal interspace. At 8.45: Pulse 64; respiration 20. No extension of loss of sensation.

31st.—The temperature at the armpits was as follows:—At 12.30 A.M.: right and left, 100°. At 1.30: right, 100·6°; left, 101°. At 2.30: right, 100·2°; left, 101·4°. At 3.30: right and left, 101·4°. At 4.30: right, 100·8°; left, 101·2°. At 5.30: right and left, 100·8°. At 6.30: right and left, 100·2°. At 7.30: right and left, 100°. At 9: right and left, 100°. At 10.15: right, 100·4°; left, 99·8°. Pulse 68; respiration 20; skin warm and dry. The temperature fluctuated during the day between 100° and 101°; but at 9 P.M. it was in the right axilla 101·6°, in the left 105; at 10.30 it was in the right 101·2°, in the left 100°. Thirty ounces of urine drawn off.

On June 1st the temperature was 98·6°; pulse 64, rather full; respiration about 20, but the patient was troubled with such incessant cough that it was impossible to count them; the respiration, too, was almost entirely diaphragmatic. No increase of loss of sensation. At 3 P.M. the temperature was, right and left, 99·8°; at 9 P.M., right 99·6°, left 101·4°.

2nd.—Temperature 99·6°; pulse 80; respiration 24. No material change in symptoms. A large quantity of ammoniacal urine drawn off by catheter. Evening temperature: right, 98·4°; left, 97·2°.

3rd.—Has passed a restless and delirious night; not more than half-an-hour of sleep. Pulse 92, full; respiration 28; temperature 102°. Has had several slight convulsive twitchings of the arms and shoulders; complains much of pain in the shoulders and legs.—8.50 P.M.: Temperature of right armpit, 102·8°; left, 104°.

4th.—Slept about an hour last night after a morphia hypodermic, $\frac{1}{4}$ gr.; then was terribly restless and delirious.—9.30: Evidently sinking fast. Temperature 106·4°.—11 A.M.: Death, just six days and two hours after receipt of injury.

Autopsy.—Part of ligamentum nuchæ and interspinous ligament between sixth and seventh cervical vertebræ ruptured; transverse processes of sixth bared of ligament. On separating sixth from seventh, which was readily done, the ligamentum subflavum was found to be ruptured, and cord exposed for fully half an inch. The transverse process on the right side was completely fractured, as were also both laminæ. The tip of the transverse process on the left side was fractured. The cord was exceedingly soft and pulpy; unfortunately it was so destroyed in removing sixth vertebra that a satisfactory examination could not be made.

NEWCASTLE-ON-TYNE INFIRMARY.

(Cases under the care of Dr. BYROM BRAMWELL.)

CASE 1. *Left Hemiplegia; Double Optic Neuritis and Syphilitic Choroiditis; motor power regained before sensibility; convulsion; death; syphilitic tumour springing from dura mater; extensive softening.*—R. S——, a man aged forty-one, was admitted on Nov. 12th, 1874, suffering from left hemiplegia. Patient had led a dissipated life for the past ten years; had been an opium-eater; had had syphilis. For the past year his sight had been failing. Three months ago he awoke one morning and found he had completely lost the

use of his left arm and leg. Speech was slightly affected; the mouth was drawn to one side. Motor power slowly returned.

On admission, there was partial loss of motor power in the left arm, leg, and left side of the face. He could walk with a stick, and could raise the hand to his head. The tongue was protruded in the middle line. Tactile sensibility in the arm and leg was destroyed. He made no complaint when pricked with a needle. Mental condition was much impaired; memory seemed almost gone. His statements could not be relied on. He said he had no pain in the head, and had never had any. There was atrophy of both optic discs, and well-marked syphilitic choroiditis. Patient was stout and very jovial. His appetite was voracious. The heart, kidneys, and other organs were, so far as could be ascertained, natural. There was a well-marked node on the left tibia. He slept soundly, and passed his urine in bed during the night.

Under large doses of iodide of potassium he improved considerably; motor power was very greatly restored; sensibility partly returned; he could tell when the upper extremity was touched or pricked, but could not localise the impression.

Dec. 5th, 6th, and 7th.—Complained of severe pain in the head.

8th.—Had a severe convulsion at 10 A.M.; foamed at the mouth. The convulsion was followed by profound coma, which continued until he died, at 8 P.M.

At the autopsy, which was made eighteen hours after death, the dura mater was found to be firmly adherent along the vertex; it was much thickened, especially over the posterior part of the right hemisphere. A nodulated tumour, the size of a large walnut, was firmly attached to the dura mater at this point. The tumour pressed upon the right upper parietal convolution. The cerebral substance was softened, almost diffluent. The softening extended through the whole of the right upper and middle parietal convolutions, and invaded the upper occipital convolution. The membranes of the brain generally were thickened and opaque. There were a few cicatrices on the upper surface of the liver. The other organs were healthy. On microscopic examination the tumour was found to consist of small round cells and a few delicate fibres.

Remarks.—The chief point of interest in this case was the fact that motor power was regained before sensibility. This perhaps may be explained by the position of the tumour, for Ferrier has experimentally shown that the occipital lobes in the monkey and the middle of the superior external convolution in the rabbit are in all probability sensory, and not motor centres. It must also be remarked that in this case there was loss of memory and marked impairment of the mental powers. The absence of pain until a late period, and the absence of vomiting, are worthy of note. (The patient may have forgotten that he had pain in the early stages.)

CASE 2. *Male Hysteria.*—R. W——, aged twenty-three, was admitted on 23rd October, 1874, saying that he was suffering from consumption. Had been for three years subject to fits; for three months had a cough. A few weeks ago he consulted a medical man, who told him he was labouring under consumption. He was a fish dealer by trade, and has been accustomed to carry heavy loads on his head.

On admission he was a tall, fair man; the hair of his head was very long, reaching almost to his shoulders. Had no hair on the face or chin. The state of general nutrition was good; the limbs were sound and well covered by fat, but not muscular. The genital organs were well developed. He spoke in a faint whisper. Was troubled with a frequent short dry "nervous" cough. The pupils were equal and widely dilated. No organic visceral disease could be detected. The bowels were costive. Pulse 72; temperature 98 5°.

Oct. 25th.—Had a severe fit at 6 P.M. last night; he threw himself about in the most violent manner and had to be held by five men. He foamed at the mouth when in the fit. The urine is copious and light-coloured. Ordered bromide of potassium and a purgative.

30th.—Complains of severe pain in the forehead, worse over the frontal sinuses than elsewhere; lies in a semi-stupid state; never speaks. Has had several severe fits; in some of the fits he rolls about the floor, but never hurts himself; never bites his tongue, but sometimes foams at the mouth. Pupils still widely dilated; radial pulse 100; temperature, axilla, 98 5°. Ordered galvanism to the larynx, valerianate of zinc, and a cold shower-bath daily.

Nov. 14th.—Very much better. Has not had a fit for several days. Says his voice is now natural; it is still very weak and woman-like.

18th.—Discharged well.

Remarks.—Dr. Bramwell had known this patient by sight for some years, and had frequently remarked his effeminate appearance. The case is a good example of hysteria in the male.

Reviews and Notices of Books.

On the Relation between Diabetes and Food, and its Application to the Treatment of the Disease. By ARTHUR SCOTT DONKIN, M.D. London: Smith, Elder, and Co. 1875.

IT is now some seven years since Dr. Donkin first drew attention in these columns to a new method of treatment in diabetes. It was a treatment which at the time excited some surprise and not a little scepticism, partly on account of its simplicity, and partly because of the novel theoretical basis upon which it was founded. In spite of this, however, it has been put to the test by many practitioners eager to adopt any remedial agent for a disease so intractable and so fatal. The result has not been wholly encouraging for the value of the skim-milk treatment, at least if we may judge from published cases. Some cases—like those recorded in this book—of success have been put upon record by other physicians; but, on the other hand, we hear of numerous failures, and some of our chief authorities have spoken in no measured terms against the method. We cannot, then, wonder that its promoter, with a zeal worthy of all praise, and confident in the truth of his researches and the value of his method, should again bring it under the notice of the profession; although he has but little to add to what is to be found in his first work, published in 1871.*

The present volume opens with an account of current opinions held concerning the pathology of diabetes mellitus, and, although differing from some of the conclusions enunciated by Bernard, he agrees in the main with the doctrine of glycogenesis, one of the crowning works of that illustrious physiologist. Dr. Donkin, however, is in error in stating that Bernard believes the destination of liver sugar to be in the lungs, for it is well known that he has abandoned this view which he first propounded, in favour of the more feasible one, that it is destined to be stored up as fat in the tissues, or expended in the production of muscular force. Dr. Donkin further shows that diabetes cannot be due to mere hyperglycogenesis (except when it occurs as transient glycosuria, which may well be termed "hepatic"), but to malassimilation of the glycogen-forming materials of food, by which sugar is at once substituted for glycogen—a view similar to that adopted by Dr. Dickinson in his recent work. But he is wholly at variance with Dr. Dickinson with regard to diabetes being a nervous disorder, and repeats in these pages his objections to the deductions drawn by that observer from the vascular changes he describes as occurring in the nervous centres of diabetics. We may remark, in passing, that these objections seem to be well founded, not only because the changes in question are equally well considered to be secondary to the disease, but because there is every probability that the traumatic disorder is not identical with the idiopathic; however great may be our desire to seek a structural change as at the root of what has hitherto been considered only a functional disorder. We must, however, dissent from Dr. Donkin in the statement that "the liver in diabetes is generally free from morbid changes"; we believe the converse to be true, and

* Skim-milk Treatment of Diabetes and Bright's Disease

that, above all, it *does* show evidence of prolonged hyperæmia. Dr. Donkin then holds that there is a functional derangement of the liver, by which its cells secrete diabetic sugar directly, and he compares this sugar to a new formation or morbid growth, which, by reason of its crystalloidal nature, passes rapidly into the fluids of the body, and its being so carried far from its seat of formation renders it incapable of detection at this place.

The main object of this book is, however, not to deal with the pathogeny of diabetes so much as with its physiological phenomena; to show, in fact, that there is solid and good reason for the adoption of the skim-milk treatment. Abundant evidence is brought to show that this method, when properly carried out, is in a large proportion of cases capable of affording great relief to symptoms and often of effecting a cure. It has, however, been reasonably objected that skim-milk contains lactose, which, as a sugar, is contra-indicated, and is destitute of fat, which is generally held to be beneficial. This is, indeed, the main question at issue between the author of this book and those who differ from him, and he meets their assertions with a direct negative. What Bouchardat rejected as prejudicial—viz., milk,—on account of its containing sugar, Dr. Donkin accepts for the same reason; while he excludes cream, which was the constituent of milk included by Bouchardat in his dietary. With regard to the albuminous principle of milk, casein, this is of course retained by both parties; but Donkin declares that in the form of cheese it is prejudicial. Briefly he bases his reasons for this conclusion on one or two simple statements. The first is that lactose—an animal sugar—differs from the vegetable sugars and starches in not being assimilated as such, or metamorphosed into hepatic sugar, but as lactic acid. This being the case, it is curious that the lactic acid treatment introduced by Cantani has failed in good result, even in Dr. Donkin's hands. The reasons he gives for the exclusion of cream—hitherto included in all diabetic dietaries—apply to all fats of whatever description. They are based on the researches of Van Deen, Poggiale, and Salomon, which point to the fact that glycogenesis occurs even on pure fatty diet. But the author appears to be unmindful of the previously opposite results obtained by Pavy, McDonnell, and others, which have gone to confirm the prevalent idea that fats can be given to diabetics with impunity, and even with benefit.

The various chapters of the work are occupied with the demonstration of these views. In the first place it is shown how diabetes results from the malassimilation of vegetable and starchy foods, next of oleaginous, and, lastly, of albuminous foods. The last chapter is devoted to an exposition of the treatment. The author rightly insists upon its being carried out strictly, as, indeed, merely as a therapeutical experiment, it should always be; but we cannot follow him in his insinuation that its failure in most cases has been due to negligence or want of strict supervision of the patient. The quantity of skim-milk to be administered must not exceed twelve pints (less to commence with), and must be regulated by the age, sex, size, and state of the patient. If more casein is required, this may be supplied in the form of curds, and he combats the taunt that it is a "starvation method" by showing that the quantity of albumen thus administered is really all-sufficient (i.e., if it be all assimilated), and that patients gain in weight under its administration. As a general rule, he has found the sugar to disappear from the urine within five or six weeks (a fortnight is the usual time he states). If the disease be too advanced the treatment will not effect a cure, but will relieve the patient's condition to a vast extent. In such cases, and in cases where the skim-milk has been attended with success, he resorts to restricted diet, based much on the long recognised principles. A few illustrative cases are given, which have been recently recorded by other physicians, as instances of the value of the treatment; and we can only say that if they be not cases of hepatic glycosuria (to the existence of which Dr. Donkin is fully alive, as is shown in the opening sentences of the book), and to be considered as genuine examples of diabetes mellitus, they are valuable evidence in support of his theory.

We do not pretend to decide upon the efficacy of the skim-milk treatment. Certainly there is plenty of evidence adduced in its favour in this little volume, which renders it incumbent upon those who have not tried the remedy to apply it as the writer directs. But, at the same time, we must warn them not to carry the treatment too far, for even the author confesses that it is not a panacea for all forms of the disease, and the result may be disastrous both to physician and patient. Nor must we forget that cases of diabetes have been cured before now on restricted diet. The author seems to us to be under the impression that the treatment he advocates has not had a fair trial, but we think he is hardly just in his criticism of those who prefer the older methods; while with Dr. Dickinson, who dismissed the subject in a few curt sentences, he is especially angry, and administers a rebuke to that physician in the form of a solemn protest against "irrational investigators."

In fine, we commend this book to all who are interested in the subject; they will find it readable, and they may be convinced, for the author writes with the earnestness of conviction himself.

A Dictionary of Chemistry and the allied Branches of other Sciences. By HENRY WATTS, B.A., F.R.S., F.C.S. Assisted by eminent Contributors. Second Supplement. London: Longmans. 1875.

ALTHOUGH there is a gap of nearly thirty years in the pedigree, Watts's Dictionary of Chemistry is a lineal descendant of Ure's Dictionary, which for so many years was one of the most highly esteemed of English scientific handbooks. The vast increase in size which it has sustained, and the disappearance of all but a few paragraphs of the original text, mark the enormous development of chemistry during the interval. In its new form the work was completed in 1868, after nine years of careful work. The five large volumes were followed in 1872 by a supplement of over 1000 pages, in which the corrections which time had rendered necessary were supplied, and the record of chemical discovery carried down to the end of the year 1869. Three years have passed, and now a second supplement, even larger than the first, appears, and continues the great chemical history to the end of 1872. It would at first appear that at this rate another supplement must already be wanted, and there would seem to be no prospect of end to the growth of the book. Further increase, however, is in reality unnecessary, for since the year 1871 the Chemical Society of London has published in its monthly journal a series of abstracts of all important papers on chemistry and its allied sciences, both English and foreign; and this journal is so well arranged and edited that the yearly volumes, with their copious indices, will supply the place of future supplements to Watts's Dictionary. When a new edition of the work is required we trust it will be found possible to abandon the system of publication in parts, and issue it at once in a complete form. Much inconvenience would in this way be avoided.

The period of time covered by the new supplement, though fertile in chemical research, did not witness the birth of many really great discoveries. Hundreds of new compounds were of course obtained, particularly in organic chemistry; old laws were revised and some new ones brought to light; but nothing transpired that seems likely to effect any radical

change in chemical thought. One great tide of discovery sets towards the physical side of chemical phenomena. Possibly the greatest secrets lie in this direction, and the results gained by Quincke, Valson, and others in regard to capillarity, by Berthelot (whose name must ever be mentioned with the highest honour) and Thomsen on heat of combination, and by Mills, Berthelot, Favre, and Deville on the conditions of chemical action, are examples of the material which is collecting for future use. Another great labour of the time is the determination of the constitution of organic compounds. The theoretical conceptions which first gave an intelligible explanation to the facts of isomerism are gradually throwing light on the most complex compounds, and have hitherto proved of the utmost value in suggesting methods of research and indicating probable means for new synthesis. Terrible names continue of course to abound. We are introduced to *orthochloroparachlororthamidophenol*, to *diacetylphenanthrenehydroquinone*, and the like, but we all know that they are necessary and really simpler than any empirical terms would be.

Physiological chemistry is well represented in the volume. Some of the articles are by Dr. Newell Martin, of Christ's College, Cambridge; but the editor contributes many, and all good. Thus we find, under "Blood," an account of Schützenberger's method of determining oxygen; and, under "Milk," an epitome of the most recent methods of milk analysis. Mr. Warrington's articles on agricultural chemistry are also excellent; and the same may be said of nearly every article we have inspected.

Altogether, it will be seen that the volume is a most valuable contribution to scientific literature; and, taking the work as a whole, we can but congratulate editor and publishers alike on their noble and colossal achievement.

The Commercial Handbook of Chemical Analysis. By A. NORMANDY. New Edition, enlarged and to a great extent rewritten by HENRY M. NOAD, Ph.D., F.R.S., Lecturer on Chemistry at St. George's Hospital. London: Lockwood and Co. 1875.

DR. NOAD has greatly improved this well-known handbook, and has done his best to bring it down to the present state of chemical knowledge. The alphabetical arrangement is wisely retained, and the analytical methods described for the most part well chosen and clearly described. Some important omissions occur, among which we may mention at random, paraffin and petroleum oils, benzene, turpentine, mustard, tobacco (often adulterated with liquorice), oil-cake, coal, and the use of the polariscope in the analysis of sugar. On the other hand, the editor has, we think, erred in including such methods as those for the complete quantitative analysis of the ores of cobalt, platinum, iron, and copper, and the assay of silver and gold. Methods like these are described in all manuals of analysis. No one but an experienced chemist would be likely to undertake them, and he would be sure to have larger manuals at his command. The space so saved might have been devoted to subjects proper to the scope of the work, and its utility thereby increased. In spite, however, of these blemishes, the book is a good one, and will be useful, not only to the manufacturer, but also to the professional chemist. Dr. Noad has greatly extended the glossary, which now contains many valuable hints on manipulation, and clear descriptions of the more ordinary forms of apparatus. That great essential, the balance, is, however, somewhat unaccountably omitted.

VACCINATION GRANTS.—Mr. T. Taylor, of Bocking, has received the "extra vaccination gratuity," amounting to £15 17*s*. Mr. J. C. Leach, Sturminster Newton, has received a grant of £8 16*s*. for efficient vaccination (second time).

CHLOROFORM OR ETHER.

To the Editor of THE LANCET.

SIR,—As the comparative merits of ether and chloroform are now under discussion, and the subject is one, moreover, of paramount interest and importance, the following case may not prove uninteresting, illustrating as it does two very prominent features in ether inhalation.

Two years ago I had occasion to operate on a woman into whose larynx I had one year previously introduced an ordinary tracheotomy tube for organic stricture. As she was reduced to the last verge of weakness it was decided to administer ether. This was given through the tracheal tube, by means of a cone of stiff paper and a sponge. It acted beautifully, sleep—calm, peaceful sleep—being at once induced. The pulse, from being quick, small, weak, and rather irregular, became slow, full, and vigorous—just such a pulse, in fact, that gives to the country surgeon perfect comfort and confidence. In this case the vapour must, of course, have entered the larynx directly, yet it did not seem to cause the slightest irritation, as there was neither gasping, coughing, nor other symptom of laryngeal disturbance. As the tracheotomy tube had been in one year, it is just possible the mucous membrane of the air-passages had become less sensitive. Be this as it may, the fact stands prominently forward that the ether vapour did its work efficiently, safely, and with apparently less discomfort to the patient than if it had been given by the mouth.

I hope I may not be considered presumptuous in coming to the front when so many experts are already in the field of discussion, but in a question of such vital importance one well-attested fact is always valuable; and from some of the letters which have already appeared on the subject, I consider this case not devoid of value, inasmuch as it shows that ether may be inhaled *directly* into the larynx without causing bronchial or laryngeal disturbance.

I am, Sir, yours truly,

JAMES MORE, M.D.

Rothwell, Northamptonshire, August 29th, 1875.

THE LATE DR. MAUNSELL.

To the Editor of THE LANCET.

SIR,—The announcement, in your last week's issue, of the premature death of Dr. Maunsell, of Dublin, is the heaviest blow and greatest discouragement which the cause of Poor-law medical reform has sustained since the day when poor Richard Griffin broke down. To me Dr. Maunsell's death is especially unfortunate, for he constantly afforded me most valuable aid in procuring statistics, notably as regards the administration of dispensary medical relief. On my first visit to Ireland six years since, undertaken for the purpose of studying the working of the system followed in that country, Dr. Maunsell was my companion and guide; indeed, without his assistance it would have been wellnigh impossible for me to have succeeded in obtaining any information. He was the originator of the Irish Poor-law Medical Officers' Association, and in his capacity of honorary secretary devoted himself with untiring energy to the realisation of its objects—viz., the improvement of the status and emoluments of his colleagues, and their superannuation. I doubt not that some effort will be made in the "sister isle" to show how much his great services have been appreciated, but in this country I feel we owe him something also. There can be no doubt that to his writings much of the success which has attended the efforts made to ameliorate the position of the Poor-law medical service is justly due,—notably as regards superannuation allowance.

That he has left his wife and young family in very indifferent circumstances there can be no doubt, and I therefore do hope that members of the profession in the United Kingdom will evince their sense of his public work *in their behalf* by contributing to a fund for their benefit.

For this purpose I shall be most pleased to receive any amount which may be forwarded to me.

I am, Sir, yours obediently,

Dean-street, Soho, August 30th, 1875. JOSEPH ROGERS.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 4, 1875.

THE meeting of the British Association at Bristol presents, perhaps, fewer topics of interest to members of our profession than has often been the case at previous gatherings. The tone of the meeting is sensibly influenced by the presidential address, which this time was devoted to a review of the salient points in the history of a mechanical, although perhaps the grandest mechanical profession. In some points, indeed, the sciences of civil engineering and of medicine have an analogy; both have to deal with forces very much beyond immediate control—to guide where they cannot thwart, to divert where they cannot arrest, and often to meet with unforeseen and impassable obstacles. A retrospect of medicine will indeed compare in some respects favourably with the retrospect of engineering. If our forward steps are halting and slow, we have, at any rate, the consciousness that we have reached the highest point of knowledge and of power the history of our art presents, and have to look back on no monuments of an ability we cannot rival and a greatness we cannot achieve.

The subject of the very able address of BALFOUR STEWART, in the section of Mathematical and Physical Science—the physics of the sun,—is one which has no very distinct connexion with the treatment of disease. But there are not wanting indications that the indirect influence of the sun on the occurrence of disease may be found some day to be much more extensive and important than is at present suspected. In illustration of this we may refer particularly to the paper by Professor STANLEY JEVONS, read before the Economic Science Section, on the Influence of the Sun-spot Period on the Price of Corn. The distinct periodicity so often observed in commercial matters, prices of produce, monetary panics, and the like, suggested to him a further and more detailed comparison, which shows that, while the period of variation in the sun-spots is 11·11 years, the interval between the principal panics is 10·8 years, and the periodicity in high price of provisions was formerly the same. The intimate connexion of the meteorology of the sun and the earth was also ably discussed by BALFOUR STEWART. He traces, besides the ordinary light and heat effect, a peculiar magnetic and meteorological influence depending somehow upon the rotation of the sun, and also a cyclonic effect depending on the disturbed state of the solar surface. All three of these conditions, with the exception perhaps of the magnetic influence, are, as is well known, important agencies influencing the occurrence of disease. It seems as if the supposed influence of the moon on the terrestrial meteorology were about to be transferred to the sun. It may possibly be found that a similar transfer may have to be made of the imagined connexion between lunar influences and some phases of periodic maladies.

Of Professor ROLLESTON'S admirable and eloquent address in the department of Anthropology we cannot now speak. In part more strictly scientific, it was also an able vindication, founded on scientific method, of the doctrine of human progress. A comparison of averages leaves the improvement in mind and morals quite unquestionable. The development of organic beings has, according to Professor CLELAND'S address in the departments of Anatomy and Physiology, reached its highest point in man. "Animal life has attained its preordained climax in humanity." His remarks upon the confused system of nomenclature in comparative osteology, which he lamented as so puzzling and repelling to the student, will probably be thought in a few weeks' time, by not a few students, to be equally applicable to human anatomy. He concluded with a vindication of the scientific position of anatomy, and an earnest appeal for its instalment in its due position as an important element in a scientific education, expressing his somewhat enthusiastic opinion that it is even yet destined to take the highest place among the sciences as a guide to philosophy! In this department an interesting paper was read by Dr. HALLETT, of Bristol, on the Bearings of the "Conservation of Forces" upon Life. With great ability and subtle thought, he opposed the inclusion among the correlation of forces of those of vital action, urging that the logical outcome of that doctrine was the prospect of the ultimate destruction of the universe by the conversion of all forces to one dead level.

Of more direct interest to us is the report of the committee appointed to investigate the conditions which influence the intestinal secretion, which was presented by Drs. BRUNTON and PYE-SMITH. The results obtained by the experiments tend to show that neither the splanchnic nerve, the pneumogastric, the sympathetic above the diaphragm, nor the spinal cord, has any influence on the intestinal secretion. They render probable the influence upon it of the solar plexus, including, but not confined to, the semilunar ganglia. The absence of relation between the hæmorrhage and the secretion when paralysis of the nerves has been produced seems to point to a separate influence on the blood-vessels and on the secreting structures of the intestines. A paper on the Effects of Drinking-waters upon Animals, by Mr. W. J. COOPER, contained little of new or special interest beyond some experiments on the effect upon rats and other animals of certain artificial drinking-waters.

Among papers in the Economic Sciences Section we must notice that read by Dr. F. J. MOUAT on the Value of European Life in India. Within the present century the annual loss of life has gradually and steadily decreased from about 60 per thousand to an average of 15 or 16, and the decrease is still in progress. Among officers, from 1861 to 1870 the death-rate from all causes was not quite 17 per thousand; and among European railway *employés* the mortality was only about 10 per thousand. The improvement in the death-rate is due to causes which will probably be permanent, and may be in large measure ascribed to the influence and advice of the medical staff, wiser modes of living, improved sanitary arrangements, and more careful invaliding when early symptoms of disordered health appear. We should, however, like an explanation of the better health of the railway officials compared with that of the military

officers. Each is a carefully selected body; each has a large amount of exposure to unhealthy influences, solar and terrestrial; and it is difficult to believe that any difference in habit of the two classes can account for the different mortality. Such was, however, the explanation offered by some subsequent speakers, who epitomised the worst antagonistic influences to European health in India as "brandy and soda." The excessive mortality among women and children adds, of course, very largely to the average, and seems to be, in the case of children at any rate, almost irremediable.

The statistics of Mr. VIVIAN on the Influence on Life of Total Abstinence, as evidenced by the tables of an insurance office in which the records of total abstainers and those of other cases were kept separately, are considerably in favour of the former. According to him, the deaths in nine years in the temperance section were about eight-elevenths of the expected deaths, while in the general section the deaths were only about one-seventieth below the calculated number. He did not, however, give the respective numbers of each class, on which all the value of the figures depends. Nothing is more fallacious than the publication of an average from a small number. The general impression in life offices is that total abstainers are bad lives, because they are so often reformed drunkards. Those who have been abstainers from youth are probably, other things being equal, better lives than those who are not, for they are withdrawn from one great cause of mortality which creeps insidiously among the best-selected lives. It is probable that to an office which is ostensibly in part a temperance one a larger proportion of life-long abstainers are attracted than to the ordinary offices.

It is satisfactory to learn that private munificence is to supply the absent funds for a continuation of the chemical analyses connected with sewage experiments. According to Mr. J. C. MELLISS, the sewage problem, so perplexing to many towns at the present moment, has been solved at Coventry in a very satisfactory manner. The purification of the sewage and manufacturing refuse is effected at a cost for chemicals of £3 12*s.* 10*d.* per million gallons, and a manure is obtained worth 35*s.* per ton. The total cost is 5*d.* or 6*d.* per head of the population. The removal of noxious materials is at present most effective; the effluent water is described as clear and bright, of a high standard of purity, without perceptible smell, and almost free from colour. We are not surprised to hear that all parties concerned are well satisfied at such a result.

AUSCULTATION of the heart, without doubt, forms one of the most interesting studies for the clinical observer, and the precise significance to be attached to the various murmurs heard in valvular disease of that organ has afforded matter of debate since the time of LAENNEC and CORVISART. Nor is it to be wondered at that such debate should still be going on with regard to these abnormal sounds, seeing that even yet physiologists by no means agree as to the causation and time of occurrence of the normal sounds, as to how far they are of direct valvular origin, or how far the muscular walls or the fluid contents of the heart itself participate in their production. The murmur which, above all others, has the most given rise to discussion is that styled "presystolic," which, when fully developed, is at once most characteristic and significant of the lesion underlying it—viz., obstruction to the flow of blood through the mitral orifice. Our own columns have frequently been the arena of discussion upon the nature of this murmur, and but recently we have had the question revived in a somewhat novel and singular manner. We do not intend to stop to examine critically the views propounded (to our thinking, somewhat too lightly for scientific debate) by Dr. A. HARVEY in his recent contribution (THE LANCET, vol. i. 1875, pp. 819 and 852); for, as Dr. GAIRDNER (vol. ii., p. 48) pointed out, all Dr. HARVEY'S arguments are based upon what is to him a mere assumption and not existent in fact. For confessing that to him the presystolic murmur has no existence, he forthwith proceeds to argue *ex hypothesi*, and to demonstrate on theoretical grounds that it could not have the physical cause assigned to it. The paper in question, however, did good in producing the clear exposition by Dr. A. CARTER (p. 203) of the clinical facts; and, although we doubt whether there is one physician out of a hundred who is of Dr. HARVEY'S opinion, we are grateful for the results of his contribution.

The chief ground for debate, however, is that raised in our columns three years ago by Dr. BARCLAY, as to whether the murmur in question be not really due to the flow of blood backwards from the ventricle—in fact, that it be of regurgitant and not of obstructive nature, and therefore produced by no contraction of the auricle, or even passive venous flow from the auricle to the ventricle. In his closely reasoned argument, Dr. BARCLAY endeavoured to show that the auricular contraction passes continuously onward into the ventricular, and that preceding the forcible systole of the ventricle there is a period of tension of its walls, during which, in cases of thickened and contracted mitral orifice, the blood is poured back into the auricle, thus delaying the first sound of the heart, which is coincident with the systole, and which terminates the murmur abruptly. He further argued that the hypertrophy of the auricle so frequently attendant on mitral stenosis is not due to the increased work it would have to perform in forcing the blood through a narrowed orifice, but that it is rather due to the increased amount of blood delivered into the chamber; since, he said, if it contracted at all, it would empty itself in the direction of least resistance—viz., into the pulmonary circulation, in consequence of the pulmonary veins being unguarded by valves. Doubtless this always occurs to a slight extent; but it is equally true, as was pointed out by Dr. BALFOUR at the time, that, the pulmonary circuit being closed, there is a considerable amount of tension on this side, sufficient—in all, perhaps, but the most extreme cases of stenosis (and in these the characteristic murmur is frequently absent)—to neutralise the resistance afforded by the narrowed outlet.

We wish, however, to call attention to the most recent work on this subject by Dr. GALABIN in his paper "On the Interpretation of Cardiographic Tracings," in the last volume of Guy's Hospital Reports. We have here the presystolic murmur put to the test of the cardiograph, the result being a strong confirmation of the view taken by Dr. W. T. GAIRDNER, and held by the large majority of

clinicians,—that the murmur is "auricular-systolic" in nature. The paper is illustrated by a large number of tracings, and all of them clearly show that in cases where there was clinical evidence of mitral stenosis the contraction of the auricle occurred earlier, was more pronounced, and lasted longer than in health; besides confirming the view of MAREY (in opposition to that of FICK), that the auricular systole is concluded before that of the ventricle begins. Criticising the view of Dr. BARCLAY in the light afforded by this research, Dr. GALABIN points out that if the murmur in question be indeed due to regurgitation, and therefore occurring with the first act of contraction in the ventricle, then in such cases the carotid pulse ought to precede the first sound of the heart, and the action of the ventricle must be prolonged in such cases, both of which effects it is known do not occur. Dr. GALABIN does good service in pointing out that the term "presystolic" is open to question, that Dr. GAIRDNER'S term of "auricular-systolic" is preferable, and that, strictly speaking, it is diastolic with regard to the state of the ventricle; and he shows—what we have indeed observed at the bedside, but have never had an opportunity of verifying in the dead-house—that in some cases there may be a pure diastolic murmur—i.e., a murmur occurring after the second sound, but terminating before the first sound, heard only at the apex of the heart, and unaccompanied by any of the signs of aortic regurgitation. Such a murmur is presumptive of mitral contraction, but yet it does not conform to the presystolic type. That it is due to mitral contraction is borne out by the cardiographic tracing afforded in such a case, and its occurrence is explained by Dr. GALABIN on the hypothesis that the passive venous flow from the auricle, due to the high state of tension in the pulmonary veins, may give rise to a murmur as the current passes through the narrowed orifice; a murmur which disappears when the pressure in the ventricle equalises, or nearly so, that in the auricle. This, we think, is a most important fact, and one to which we direct Dr. BARCLAY'S attention; but at the same time we must admit that such murmurs are conspicuous by their rarity, and that the commonest of all the abnormal sounds indicating mitral contraction is that which begins before the first sound of the heart, and, increasing in intensity, terminates abruptly in that sound, and that this *is* due to auricular contraction we think no doubt can remain in the mind of him who studies Dr. GALABIN'S essay. There remain doubtless, further refinements in cardiac auscultation to be one day elucidated—e.g., such modifications of the sounds as may be produced by the minuter changes in valves &c.; but surely the day is passed when we can no longer diagnose manifest obstruction at any of the orifices of the heart.

ACTS OF PARLIAMENT are not usually light or pleasant reading, particularly in the dog-days; but as so many of our readers, as well as the public generally, are interested in the buying and selling of food and drugs, the submission of a summary of the Sale of Food and Drugs Act, which will come into operation on the 1st of October next, cannot be deemed by any a work of supererogation.

There are thirty-six sections in this Act, all former enactments relating to the subject being henceforth repealed. The authorities appointed to carry out its provisions are the Commissioners of Sewers for the City, the District Boards for the rest of the metropolis, the Court of Quarter Sessions of every county, and the Town Council of every borough having a separate quarter sessions or a separate police establishment. In Scotland, the authorities are the Commissioners of Supply for counties, the Commissioners or Boards of Police, and the Town Councils for boroughs; and in Ireland the authorities are the grand juries of counties and towns and the Town Councils of every borough. Each and all of these authorities may or, when required to do so by the Local Government Board, shall appoint an analyst, who, on receipt of a sum not exceeding half a guinea, shall analyse any article of food or drug, the purchaser notifying to the seller his intention respecting it, and dividing the article into three portions, there and then to be sealed and marked, and held respectively by the vendor, the purchaser, and the analyst. All medical officers of health, inspectors of nuisances, weights and measures, and markets, or any police constable, may direct an analysis at the cost of the local authority; and a penalty is attached to the refusal to sell for the purposes of analysis any article exposed for sale. The analyst is required to report quarterly to the authority appointing him the number of articles analysed and the results, copies of which are to be transmitted to the Local Government Board. The offences under the Act include mixing, colouring, staining, or powdering any article so as to render it injurious to health, performing the same operations so as to affect injuriously the "quality or potency" of any drug, or selling any articles that have been so treated, exemption being allowed if ignorance of the fact be proved. Also no article is to be sold that is not "of the nature, substance, and quality demanded by the purchaser"—harmless ingredients required for "the production or preparation of any article," "proprietary" medicines, and food or drugs unavoidably mixed with "some extraneous matter in process of collection or preparation," being excepted. Also no person must, without notice, abstract any part of an article of food so as to affect its quality injuriously; exemption being, however, allowed, if the label indicates any change in bulk or quality. Proceedings against offenders may be taken by the person who has caused the analysis to be made, the certificate of the analyst being *primâ facie* evidence for the prosecution, but the analyst to give evidence if required. The justices may reduce or mitigate any penalty imposed, and may also at the request of either party cause the article to be examined by the analysts of the Inland Revenue Department at Somerset House. A further appeal is also allowed to the general or quarter sessions. Provisions are made against forging or misapplying a certificate or warranty, and for giving false labels. There are two special sections relating to tea, which recite, in effect, that on and after the 1st of January next all tea imported as merchandise into Great Britain and Ireland shall be subject to examination by officers of the Customs; and if such tea is found unfit for human food, it is to be condemned and destroyed, or otherwise disposed of as the Commissioner of Customs shall direct. "Exhausted" tea is defined to mean "any tea which has been deprived of

its proper quality, strength, or virtue by steeping, infusion, decoction, or other means."

The weak points of the Act are not far to seek. The exemptions are so many and various that the chances of the escape of the defendant are by no means few. Indeed, as it appears to us, the 5th and 6th sections are specially framed to enable the vendor to wriggle out of a conviction. Section 22 will practically make the Laboratory Department of the Inland Revenue a court of arbitration in all cases of dispute, which will be numerous, so that the officers will doubtless have plenty of work to do. We again take leave to record that (and particularly as regards the provisions of this Act) the duties of medical officer of health and of analyst are incompatible, and cannot be properly or successfully performed by one and the same person. We trust that in a short space of time these dual appointments will have ceased to exist.

THE ostrich buries his head in the sand in the presence of danger no doubt because that is the readiest mode of shutting his eyes to a difficulty he has neither the courage to face nor the wit to avoid. Our own policy in many grave emergencies is substantially the same. If a few sheep or oxen imported for food exhibit symptoms of a malady which must render their flesh not only unwholesome but perilous to consume, we kill off the entire herd or flock and sell the carcasses as quickly as possible, lest they, too, should turn out to be infected and therefore unsaleable. It is no concern of ours that probably—if there were any real grounds for apprehension as to the health of the herd—the animals slaughtered are, in point of fact, poisoned and incubating the disease, and that it is infected meat we allow to be sold to the public. At the moment the animals are killed we presume them to be technically healthy, although it is the misgiving that they may be infected which prompts their immediate sacrifice. In like manner, if a servant resident in a family is supposed to be sickening for some infectious disease, she is hurried away lest the supposition should be realised, and, the nature of the malady being actually known, it may be impossible to get rid of her. In all these cases refuge from the difficulty is sought in blindness to consequences. We fear the evil, and intentionally shut our eyes to the danger it threatens. The device is not without plausible excuse, and it enjoys a measure of success or it would scarcely be tolerated. No case of blood-poisoning from eating meat hurried to market to avoid the discovery that it was unfit for food has been recorded; and instances in which a neighbourhood is poisoned with disease blindly sent into it are not, as a rule, obtruded on public notice or allowed to scandalise the sense of decency. Exceptions do, however, occasionally occur, and one of them has found its way into *The Times*, to be followed most likely by others equally or even more sensational. The case, reported by a clergyman, possesses no special feature. A servant suffering from malignant fever, as the event proved, was sent home to her friends in the country—no doubt with benevolent intentions. She carried the disease into her family, and her own life and two other lives were sacrificed. Eleven cases in all formed the group of which this one, quietly put away out of sight by the persons who first *suspected* its real nature, was the seed and centre. We have no thought of moralising on the "indiscretion" or pouring out vain lamentations about the "untoward accident." If there had not been some fear that the girl was affected with an infectious disease she would not have been sent away. The circumstance that the fear entertained was well grounded is creditable to the forethought of those who rid themselves of the danger. It may not reflect the same credit on their humanity as on their sagacity; though even in this regard much may be said for those who keenly remember that charity to the human family begins at home, but forget that it does not end there. We do not think anything is to be gained by lecturing the public. Self will always be first, and it is generally all, with the best of us. The more practical consideration is, whether it would not be well if, attached to each hospital, or located in suitable districts in blocks by themselves, there were wards, appropriately furnished, where persons suffering from anomalous attacks, not sufficiently advanced to admit of diagnosis, might be instantly received, on small payment, without obtaining an "order" or any other troublesome preliminary, and where they might remain under proper expectant treatment until such time as the attack terminated or developed itself. A convenience of this nature would be greatly appreciated by the public; it would also prove singularly useful to the family practitioner, who is now often sorely pressed to advise his client as to the instant removal of a case occurring among the domestics, concerning the precise nature of which he is at the moment doubtful, but which he has no wish to send into a hospital or to remove from his own supervision before its character becomes apparent. It is of the essence of our suggestion that the wards should simply provide shelter and suitable appliances of nursing, and that the cases sent in should remain, if desired, under the medical care of the practitioner by whom they were introduced. We throw out the hint as a possible solution of a grave and pressing difficulty.

Annotations.

"Ne quid nimis."

THE ARMY MEDICAL SERVICE.

MR. GATHORNE HARDY, like the rest of the world, is probably at this time enjoying a *dolce far niente* life after his official labours, although it has been rumoured that the War Office was to be employed during the recess in evolving some new scheme of military organisation or in modifying and perfecting that left by their predecessors. It is to be hoped that one of the first announcements on the meeting of Parliament will be that Mr. Hardy has made up his mind what he intends doing for the Army Medical Service. The War Minister must have given the subject his full consideration, for, according to his own showing, he has taken his time about it; but we have not been able to gather anything from his statements, so far, beyond the fact that he seems very indisposed to introduce a system of compulsory retirement for the upper ranks. The view that it would be productive of hardship on medical officers to be compelled to go at sixty years of age seems to us an unreasonable and untenable one. The officers in the administrative ranks of that age will have long been not only in the enjoyment of a

higher rate of pay and allowances, but they will have been on full pay service for years after the compulsory retirement of their juniors in the executive ranks, and when they do retire it is with a much higher rate of pay. Let the position of an officer who has had the good luck to have been promoted early and to have filled, it may be, the principal post in India, be contrasted with that of an executive officer going at fifty-five years of age, and the difference is enormously in favour of the former, especially when it is considered that there was, perhaps, little or no difference in the abilities, character, or services of the two men. The benefit of the Service, as a whole, should be taken, in this as in all other instances, as the true and legitimate basis of action; and if it be held right to compel a military chaplain to retire at sixty it certainly cannot be wrong to apply the same rule to a military doctor. If, however, Mr. Gathorne Hardy has another and better method for securing a reasonable flow of promotion we shall be very happy to hear it. And in any case we anxiously await the time when Mr. Hardy shall disclose his intentions, for the present condition of things is eminently unsatisfactory. We learn that at the last competitive examination twenty-two candidates went up, one retired, and the remainder qualified, out of whom fifteen were selected. From this it appears clear that Mr. Gathorne Hardy's statements as regards his intentions are considered to portend some changes for the better. We can only hope that the Service will not be disappointed.

THE PHARMACEUTICAL CONFERENCE.

THE twelfth annual meeting of the British Pharmaceutical Conference, held at Bristol, seems to have been a useful and creditable one. The address of the President, Mr. Groves, was interesting and well sustained throughout. It showed an admirable knowledge of the progress of pharmacy, and especially of the points of it at which scientific and practical ends meet. The President seems dissatisfied with the Irish Pharmacy Bill, and especially with the fact that it was framed without consultation with the Pharmaceutical Society. The withdrawal of the reciprocity clause was boasted of by one of the subsequent speakers as a result of the plain speaking of a deputation of the Council of the Pharmaceutical Society to the members of the House of Commons in the lobby. It is, to say the least, lamentable at this time of day that there should not be reciprocity between the druggists of England and Ireland, as there is between the doctors of the two countries. The President discussed the pharmaceutical position of some new or recent remedies, especially of jaborandi and salicylic acid. He referred with gratification to the production of salicylic and carbolic acids from the essential oil of a variety of the genus *Andromeda*, which grows inexhaustibly on the Neilgherry Hills. His account of the chaotic state of our knowledge of the active principle of digitalis makes us very thankful that there is a Pharmaceutical Society to take cognisance of such matters and present them in a practical form to medical men. The President was not slow to acknowledge the services of the profession in introducing drugs found useful in foreign countries, such as those of Dr. Fayrer in introducing Goa powder; and of Dr. Dougall, of the Indian Government, in employing gurjun balsam as a remedy for leprosy. Referring not very sanguinely to the prospect of an international Pharmacopœia, he expressed a hope that the indication of extreme doses would be made binding on the prescriber, as is the case now in Germany. This is only reasonable. We should all be grateful to a chemist for making inquiry in reference to the prescription of an obviously excessive quantity of a poisonous drug; and it is but due to dispensers to make such prescriptions clear, and not leave them in anxious doubt. We cordially endorse the views of the President as to the necessity for a commission which would grapple with the evil of the unrestricted sale of so-called patent medicines, many of which are frightfully injurious. He instanced one, known as the "sure cure for the opium habit," and found to contain two-grain doses of morphia, to be taken three times a day!

THE CASE OF GENERAL REECE, C.B.

THE letter of Mr. Low, which we publish to-day, if it puts the case in no new light, adds some important facts to the details which have already appeared. The history is a sad one. The final unhappy state of affairs appears to have been the result of family estrangement, which had lasted for many years, and to which the General's solitary life, and probably much of his mental state, are to be attributed. Whatever the General's actual mental condition may have been, it is to this estrangement that we must attribute any necessity there was for his detention and restraint as a certified lunatic. There is no account of violence which would have rendered it impossible for his friends to receive and take care of him. The law expressly favours the reception of lunatics by their relations, in its provision that any person deriving no profit from the charge may take care of a lunatic without legal supervision. The case was one, at the worst, of merely senile alienation, a condition apparently very similar to that of thousands whom no one dreams of incarcerating or restraining from the free exercise of their will, so far as such exercise is harmless to those around them. Whether or not the evidence of insanity was distinct and unquestionable we do not attempt to discuss. The point will, it appears, be decided before a legal tribunal, since the will of the deceased is to be disputed in the Probate Court. The letter of Dr. Tuke, which we published a fortnight ago, hardly explains the ground on which the certificates were signed, and he is in manifest error in believing that no medical opinion has been expressed in opposition to the affidavits which he and Dr. Maudsley signed.

While the circumstances of the case were such as to suggest the mildest mode of treatment, if any comfort to the patient or hope of recovery could be expected, there are sufficient evidences that the treatment adopted was one of considerable severity. The facts stated by Mr. Low, and, indeed, admitted by Dr. Tuke, show this clearly, as did also the evidence at the inquest. Not only was the old friend and banker denied admission, and only able to get access to General Reece at long intervals and by official interference, but even the landlady, who had been in constant intercourse with him, was not allowed to enter his room. It must be admitted that such treatment is likely to increase rather than lessen the mental disturbance of senile brain degeneration, and no facts have been stated on which it could be justified.

While we can hardly say with Dr. Tuke, that "the case shows very forcibly the intense jealousy of our English law of any undue interference with the liberty of the subject, and, with the present legal safeguards, the impossibility of any real sane man being treated as a lunatic," we are glad to believe that such cases as the present, in which even a doubt on the subject can arise, are of extreme rarity. The case illustrates, perhaps, the only danger of misapplication of our lunacy arrangements. It is not easy—it is, perhaps, not possible—for a man in perfect mental health to be confined as a lunatic. It is possible for a person of unsound mind to remain in the fullest possession of his liberty, to live unrestrained among his friends, provided he is not violent, and provided he has relatives willing and able to take charge of him. But it is possible for those who are on the borderland of insanity, who are in that

condition in which some physicians may take one, and others another view of the exact mental state of the patient—the individuals whose harmless eccentricities are sometimes unreasonable but hardly mad, to whom freedom is happiness and restraint would be misery,—it is possible for these to be restrained and relegated to the mercies of a paid attendant, if the relatives are desirous that such should be the case. They have only to dismiss the doctors who consider the patient eccentric, and employ those who regard him as insane, and the thing is done. We do not say that this was so in the present case, but the circumstances show very clearly that it is possible, and that it is a loophole in our present lunacy system for the exercise of some practical injustice. It is probably not often that evil consequences actually ensue, but it would be well if means could be devised to prevent the occasion of such reflections as those which must arise from the circumstances of a case such as that of General Reece.

WOOD v. THE MANCHESTER, SHEFFIELD, AND LINCOLNSHIRE RAILWAY COMPANY.

IT would certainly have been by no means surprising had the juries to whose decision the practical issues of the case of "Wood *versus* the Manchester, Sheffield, and Lincolnshire Railway Company" were committed, failed to come to a uniform opinion on the merits of the case. To a lay mind the conflict of medical evidence must have been most perplexing. It is only by weighing carefully the character of the statements on the two sides that a fair judgment can be formed of the probable circumstances of the case, and even then the verdict can be only an approximative one. Our readers had, in the letter of Dr. Withington, which we published a fortnight ago, an account of the case from the point of view of the patient's medical advisers, in which it is contended that the cause of death was traumatic meningitis, consequent on an injury received in the railway accident. The letter of Mr. Dacre FOX, the medical officer to the Company, which we publish to-day, sums up the evidence in favour of regarding the cause of death as typhoid fever. The unfortunate man had been, on the one hand, exposed, certainly, to a possible cause of traumatic meningitis. On the other hand, he was possibly exposed to the cause of typhoid fever. The symptoms during life were compatible with either view. As to the post-mortem appearances, the most contradictory statements were made by the medical men who made or witnessed the post-mortem examination on the part of the friends of the deceased and of the Company. It is said by one side that the appearances of meningitis were amply sufficient to account for death; on the other, that the brain and its membranes were perfectly healthy. On all sides it is admitted that in the intestines there was a swollen condition of Peyer's patches, such as is seen in a certain stage of typhoid fever, but it is alleged by those who represented the friends that the appearances were not compatible with the condition which would be found on the seventeenth day of the disease, the day on which the deceased died; and, further, that they might be explained by powerful purgation at the commencement of the illness. The swollen condition of one or two of Peyer's patches is, indeed, the one positive fact which stands out among the conflicting statements concerning the post-mortem appearances. In accepting it as conclusive of the existence of typhoid fever, one fact is assumed for which there is no published corroboration—that typhoid fever may last sixteen days before the commencement of ulceration. The latest date on which ulceration has not been found has hitherto been the twelfth day. It usually occurs some days earlier, even in mild cases. Dr. Murchison, however, does not consider, as his statement to the Company shows, that the absence of ulceration at that date is exclusive of typhoid fever. The grounds on which his opinion is based—an opinion with difficulty reconcilable with the published statements in the last edition of his book—would be interesting to the profession. As it stands, it is the most authoritative opinion that can be obtained on the subject. If the merely swollen state of Peyer's patches of the intestines was not incompatible with typhoid fever, they might reasonably be supposed to be indicative of it—the symptoms during life being taken into consideration,—provided no evidence of meningitis was to be discovered. Here the conflict of statements, as it stands in the report of the inquest, is absolute. They can, indeed, only be valued by looking at the character of the assertions by which the several statements were supported. When we do this we must confess that the balance of knowledge of pathological appearances appears to be on the side of the Company. It is certain that the written opinion of Dr. Lancaster on the point, which was not, however, given at the inquest, has a special value, because, as former assistant at the West Riding Asylum, he must have been perfectly familiar with the appearances of the normal and abnormal meninges, and his opinion is "that there was nothing particularly abnormal in the brain or its membranes except some opacity of the arachnoid membrane." This is, we need not say, a most common condition apart from any preceding inflammation, as several witnesses on the side of the Railway Company pointed out. On the other hand, Dr. Morris, who made the post-mortem examination, asserted that the arachnoid was "rough, covered with lymph, milky white or semi-opaque." Much would depend upon the position of the roughness, and the value of this witness's evidence against the Company is reduced by his subsequent statement that the deceased was suffering from typhoid fever at the time of his death, although the death was due to meningitis—an opinion which, although not very satisfactory as a scientific explanation of the case, probably coincides very closely with the impression which the evidence would leave upon the mind of the jury, and with the verdict which they brought in.

The extreme practical inconvenience of the word "typhoid," as applied to the specific fever, appears very clearly from the report of the inquest. We find one medical witness asserting that the disease in the intestine showed there was typhoid fever, but that typhoid fever might result from the blood-poisoning with urea consequent on the retention of urine. If we find such confusion existing in a medical mind on the subject of typhoid fever and the typhoid state—a confusion which results from the unfortunate nomenclature which, in spite of the College of Physicians, remains, and seems likely to remain, the popular terminology—we cannot wonder that the task of witnesses and of juries in such a case is rendered even more difficult than the facts necessitate.

UNQUALIFIED OBSTETRIC PRACTICE.

THE death of Eliza Swain, from hæmorrhage, near the time of her confinement, undelivered, has been the occasion of an inquest at Islington. First a midwife was called, and then Mr. Byers. Mr. Byers, we have reason to remember, is unqualified. Mr. Byers went for another doctor, and found Mr. H. F. Burnes at 2 o'clock in the morning. When they returned the poor woman was dead. The midwife saw the patient in the preceding afternoon at 4 o'clock and again at 6, at which times there were no symptoms of hæmorrhage according to report. Of course it is possible in such cases for there to be great internal hæmorrhage without any or any proportionate appearance of blood externally, and it is to be admitted that such cases are amongst

the most terrible in practice, even to the most accomplished accoucheurs. Schroeder says that the prognosis for the mother in such cases is much more unfavourable than in placenta prævia. Dr. Barnes says, "Death may occur in a few hours, even before delivery." Still there is much to be done in these cases which does not seem to have been done. The jury came to the following verdict:—"That death resulted from excessive hæmorrhage during labour, and that death was accelerated by neglect and want of proper skilled treatment on the part of an unqualified practitioner."

Mr. Burnes stated that on making a post-mortem he found a breech presentation, and no attempt had been made to deal with the case scientifically. The hæmorrhage which had taken place was dreadful. He had no doubt that if he or another qualified medical man had been called in earlier the deceased's life might have been saved. The placenta was not prævial. It is important to place the blame of these lamentable obstetric cases rightly. Our contemporaries, in reporting this case, give prominence to the fact that Byers is unqualified; but they ought to give prominence to the further fact that such is the disgraceful condition of the law that qualification is not required for midwifery practice. Anybody may practise midwifery. Byers has already been punished for using titles falsely. This he has ceased to do, and he breaks no law in attending lying-in women, whose cases, however, it is seen are often the gravest in practice. Our lay contemporaries should use their influence to procure a change in the law that permits unqualified persons, men or women, to practise midwifery. Until this change is made a great many lives will continue to be lost.

THE DISCUSSION ON VIVISECTION AT EDINBURGH.

CONSIDERING the importance of the subject of vivisection, and the way in which certain classes in this country especially have been moved by it, we think that it may be well to supplement Dr. Rutherford's remarks thereon, at the late meeting of the British Medical Association, by a reference to those made by Dr. Burdon-Sanderson and Sir R. Christison on the same subject. Dr. Burdon-Sanderson drew particular attention to the statement made by Dr. Rutherford—viz., that in the experiments used in illustrating the processes of physiology for teaching purposes, it was possible to demonstrate all the great facts, especially those fundamental facts which had made the last twenty years so notable in the history of the science, in animals altogether free from suffering. As regarded the result of Dr. Rutherford's own experiments, it was by means of such investigations alone that they could obtain an answer to the question, which of all others interested them most in physiology, or, in fact, in any of the applications of science to medicine. The question was, How did those agents, of which they had a vague knowledge by means of their experience in medicine, affect the great functions of the body? They must all feel that it was of immense importance that the agents which they were using daily in practice should be known to them, not merely by the knowledge they gained from experience, but also by that kind of knowledge which could only be obtained by the application of scientific methods of investigation. In the instance before them there could be no doubt that the knowledge gained by Dr. Rutherford was of the most important and valuable kind, and the only question was whether the requisite skill and judgment were used in the performance of the experiments, in order to ensure that the best results were obtained, and that for every grain of suffering which was inflicted on the animals there might be got an equivalent of valuable knowledge. Dr. Burdon-Sanderson expressed his great confidence in the Legislature in this matter, and he believed that those who were considering the subject would not only be guided by motives of humanity, but afford evidence of a sagacious consideration of the necessities and requirements of the case. Sir R. Christison dwelt, and very forcibly, on the great practical value of the results obtained by Orfila and Majendie by the aid of animal experimentation, and adverted to some of his own labours and observations in toxicological science. Sir R. Christison did not suppose that anyone would desire to prevent our having recourse to such experiments as might either establish the guilt of a criminal or save a man's life when unjustly charged. Alluding to an investigation which he had undertaken to settle a very difficult and primary question as to the action of medicines and poisons through the medium of the blood or of the nervous system, Sir Robert said he had abandoned the method he had devised some time ago for settling the point, in consequence of the cruel nature of the experiments required; from which it might be inferred that in a great school such as that of Edinburgh, where men of sense knew what they should or should not undertake, nothing would be done in the least degree offensive to public decency or public opinion even; and, further, that cruelty was just as disagreeable to a vivisectionist as it was to any of those super-delicate people who were offering a reward of twenty guineas for the discovery of a vivisectionist.

THE CASE OF LOUISE LATEAU.

FOR the past seven years the public mind in Belgium has been greatly exercised by the performances of a country girl, who has been subject to weekly attacks of ecstasy accompanied by cutaneous hæmorrhages from special regions, which, from their associations, are held in Catholic countries in profound reverence. Many have been the pilgrimages to the village of Bois d'Haine, where this lowly mystic dwells, and many have been the treatises, religious and scientific, that have been written to explain the phenomenon from their special point of view. At the commencement of the present year a commission of the Royal Academy of Belgium, under the leadership of M. Warlomont, investigated and reported fully upon the case. The report, which was a most elaborate one, came to the conclusion that the girl was the subject of "stigmatic neuropathy"—a new addition to nosology. We have just received a most interesting memoir (*Science et Miracle: Louise Lateau, ou la Stigmatisée Belge*), by Dr. Bourneville, of Paris, the talented editor of M. Charcot's work on Nervous Diseases, and himself no mean contributor to the literature of neuropathy, in which, after careful study and analysis of the writings on Louise Lateau, he concludes that her case is nothing but one of extreme hysteria. After giving a detailed account of her early life, and of her manifestations, each of which—the stigmata, the ecstasies, visions, prolonged abstinence, anuria, insomnia, &c.—he analyses in full, he passes on to compare her case with those of other well-marked examples of hysteria, many of which either have been or are in the wards of La Salpétrière Hospital. A case is given in which cutaneous hæmorrhages, preceded by neuralgic pains, and occurring in different parts of the body, were met with, accompanied by hystero-epileptic fits. Another, recorded by Magnus Huss, of Stockholm, as early as 1851, in which the subject had similar hæmorrhages, unaccompanied by menstrual derangement, and without any hæmophilic tendency. This patient could even provoke the hæmorrhages at will, and became the object of much curiosity and sympathy. She also was subject to epileptiform attacks. With regard to the ecstasies, there has been in La Salpétrière

since 1840 a most unique case of hystero-epilepsy, in which the convulsions are most extreme, and on several occasions the subject of them has passed into a state of cataleptic rigidity in the attitude of the crucifixion. Whilst in this state she sees visions of the Saviour and the Virgin, and in every respect, save the regularity of recurrence, the attacks resemble those of Louise Lateau. Prolonged abstinence, diminution or even suppression of the excretions, have also been observed among other subjects of hysteria, which even excel the mystic of Bois d'Haine in the extremity to which their functions are deranged.

A striking commentary regarding Lateau has just been going the round of the papers. "It appears that for some weeks, her sister having kept priests and sightseers aloof, she reverted to normal habits and conditions; but, relapsing into a state which led to priestly services being called in, the former symptoms—fasting, trances, and stigmata—have reappeared." *Verbum sat.*

GOVERNMENT RESEARCHES.

IT is encouraging to find the time which must now elapse before the shortcomings of the last session in the matter of sanitary reform can be compensated, is not to be unimproved. Mr. Sclater-Booth has, it appears, determined to send out a commission composed of Mr. C. S. Read, M.P., Mr. Robert Rawlinson, C.B., and Mr. S. C. Smith, C.E.—the name of the scientific medical man who will, *of course*, be included in the staff has not transpired—to examine and report upon the various methods of disposing of town sewage adopted on the Continent. It is said that the inquiry will be directed "principally to the effects of frost, during severe winters, on closets, house-drains, and irrigated grounds." We should have supposed this might form a subordinate feature of the researches prosecuted. It surely cannot be difficult to conjecture pretty accurately what effects are likely to be produced by frost upon sewage. We presume it is in contemplation to separate the "storm-water"—i.e., the accumulated rain and washings of the streets—from the ordinary fluid of the sewage and domestic "slops." This procedure was, many years ago, held to be the first step essential in any efficient reform. Without doubt it would greatly facilitate the disposal of sewage if the superfluous bulk of the water could be separated from it. But there are sanitary perils in the way. It would never do to leave the house-drains without frequent flushing. We venture to suggest that the commission shall be further charged to inquire what effect the drought of a severe summer may have upon the closets and house-drains. Again, is the problem of "utilising sewage" solved in several places on the Continent at that risk to health which must always be entailed when sewage conduits and receptacles are left dry? We should be glad to hear that the atmosphere of some of the closets and air-chambers connected with the drains was to be examined and tested, that the effects of winds blowing through the sewers would be investigated, and that the general sanitary condition of the districts where sewage is "utilised" was to be carefully scrutinised and form a prominent topic of the official report.

DEAR MEAT.

WHAT dear meat means already to householders is too well understood for them not to be gravely concerned with the unpromising prospect of having to pay still higher prices during the ensuing winter. In hospitals, also, where, of necessity, the consumption is large, the effect of high prices of meat will be greatly felt; and it will be felt even more severely in the case of sick people belonging to the poorer and middle classes, who have no funds to fall back upon. As it is, many belonging to the professional classes are much worse off and fare worse than the working classes in this country. As everyone knows, the consumption of meat has enormously increased of late years, and it forms the essential part in many households of three daily meals, to the injury very often of those who consume it. Still, in the case of sick people it sometimes happens that their diseases may be partly attributable to a state of chronic starvation, and it commonly happens that a liberal supply of animal food is required at some stage of their illness, or during convalescence. What with adulterations of many simple articles of diet, and the dearness of others, like milk, eggs, fish, and the like, many a professional man with a family outwardly maintains a fair social position, but, in reality, leads a life of what may be termed genteel starvation. The occurrence of a case of typhoid fever, or scarlatina, proves most disastrous in such a household, and may even irretrievably ruin the head of it. What dear meat means under circumstances like these can be more readily imagined than described. It is a question in which we are all interested, but we confess that while we have no sympathy with the grumbling of those—and they form a numerous class in this country—who eat more meat and do less work than is good for them, we cannot avoid sympathetically asking ourselves what is to become of people who are compelled to live with strict frugality, and, after toiling all day, are anxious at night as to the morrow's bills? Surely more extensive use might be made of Australian and other preserved meats imported into this country.

COMPOSITION OF PUS AND MODE OF FORMATION OF THE LEUCOCYTES OF PUS.

IN a memoir recently presented to the Academy of Sciences, M. Bergeret, of St. Léger, gives the results of a long series of investigations he has undertaken in regard to the composition of pus, and the mode in which the leucocytes it contains are formed. He finds that every collection of pus, whatever may be its origin, contains pyocytes in three stages of development. 1. Young leucocytes not more than twenty-four hours old. These contain mobile corpuscles of various sizes and forms—globular, linear cylindrical, in chaplets, or dumb-bell-shaped, or hemispherical, and conceal the nuclei. The pus-corpuscles are highly hygrometric, and, when immersed in water, swell till they burst, discharging their granular contents and nuclei into the surrounding medium. 2. Young leucocytes from twenty-four hours to four days old. The nuclei of these are very apparent; a portion of their contents is still mobile, the remainder is attached to the nuclei and renders them granular. These leucocytes are smaller than the former, and irregular in form, in consequence of the envelope having contracted adhesions to the nuclei. They are less hygrometric, but still swell in water usually more or less irregularly; and the granules they contain, at first quiescent, soon begin to move, and escape when the envelope bursts. 3. Old leucocytes, the age of which is more than four days. These are small and crenulated, have lost their hygrometric properties, and their granules are no longer capable of re-acquiring movement after imbibition of water.

In addition to the leucocytes, pus is also composed of serum, and in the serum float numerous mobile granulations of the same form as those contained in the interior of the leucocytes; their movements are, however, much more free, and whilst some may be observed merely to oscillate, others traverse the field of the microscope with more or less rapidity and in every direction. These granulations also, like those in the pus, only remain lively for about four days. After this they group themselves together, and form the

small amorphous granular masses which are always met with in collections of pus, but especially in chronic abscesses.

M. Bergeret explains the formation of pus in a blister by pointing out that on the under surface of the detached epithelium there is a layer of amorphous mucus, which constitutes a pyogenic medium. He is opposed to Virchow's views.

VEGETARIANISM A CURE FOR INTEMPERANCE.

A paper read before a section of the British Association last week may perhaps call attention anew to one of a tolerably comprehensive series of specifics recommended for the cure of intemperance. Unfortunately they partake too much of the nature of those "love potions" and "beauty powders" which beguiled the faith of our forefathers. The notion of making a person possessed with the passion for drink temperate by feeding him exclusively on vegetables is at first sight so amusing that it amply justifies the pleasantry about a forthcoming proposal to prescribe "intemperance as a cure for vegetarianism." Without doubt the consumer of huge quantities of succulent edibles or of food which promotes the absorption of a considerable amount of water when it is eaten, is not so likely to drink copiously between meals as an individual who feeds differently. In so far, therefore, as the propensity to drink is called forth by the sensation of thirst, which is seldom the case with the genuine drunkard, the vegetarian may be less prone to irregular and uncontrolled indulgence than the eater of meat. It is also possible that the vegetable feeder, living, as it were, an octave under the consumer of flesh, may not require the same amount of stimulant to recover him to his habitual tone when he falls below from exhaustion; and it is this need that usually incites to drink. Meat is a stimulating diet, and in excess it is well known to elevate the pitch of organic life to a point of high tension. The artificial stimulant required by the excessive meat-eater is alcohol; the sufficient stimulant of the man who lives wholly upon vegetables may possibly be milk! There is something in this, though we state it thus broadly. Nevertheless, to attempt the cure of a propensity for the excessive use of stimulants by changing the whole character of the diet is so startling and unscientific that it reads more like the nostrum of an enthusiast than the conception of a sober practitioner. It entirely ignores the peril of lowering the vital tone of a system already enfeebled by over-stimulation. We venture to hope no one will have recourse to the expedient, even by way of experiment, except under conditions well considered and abundantly secured from a peril neither imaginary nor of small proportions; and we venture to think few who have bestowed as much thought on the prescription as these precautions imply will put it in practice.

CONCENTRATED FILTH.

Take an apparatus ingeniously constructed to collect and keep back all the worst impurities of water, while it allows the fluid to percolate slowly through its strainer; continue to pass water for drinking purposes through the residuum accumulated until it runs out so discoloured as to attract the notice of persons drinking it; let the water you subject to this *purifying* process have been previously driven, with force enough to stir up all deposits, into a cistern the bottom and sides of which are thickly encrusted with slimy matters derived from the same source, the water having first lain for a considerable time exposed to sun, rain, and air, in one or more of the reservoirs provided by water companies for the purification of their supply, but generally regarded by the neighbourhood as convenient receptacles for dead cats, and rapidly developing into aquaria. Could any procedure not intentionally designed to ensure a subtly impure condition of our principal drinking fluid be more likely to produce that disagreeable and dangerous state of matters? The domestic filter gives the finishing touch to a process eminently unsanitary, and all because the apparatus employed to cleanse the water passed through it is not itself sufficiently clean to be innocuous. It is probable that some of the most deleterious foreign substances in water are not eliminated by the filter. If this be the case, the consumer takes them in a highly diluted form, and may escape with impunity. But whatever the filter detains is accumulated in a mass of slime and filth through which the water trickles gradually, doubtless dissolving much which it would otherwise not take up and becoming more or less poisoned by the putrefying matter through which it is wantonly set to gravitate. The facts are so simple and suggestive that they need no enforcement. Better leave the water unfiltered than pass it gratuitously through a bed of concentrated filth. The notion of cleaning a filter once in twelve months, or, as is the practice in some establishments, once in three years, when the apparatus itself requires removal, is so nasty that unless the fact were notorious it would be over-credulous to speak of it. The custom of leaving cisterns uncleaned until they become interesting to the naturalist, and allowing reservoirs to grow into manure pits, is probably too deeply rooted to be changed by anything short of a revolution in the interests of common sense and common decency.

HEALTH OF CUSTOMS OFFICERS.

Dr. Dickson, R.N., medical inspector of Her Majesty's Customs, contributes his annual chapter to the nineteenth report of the Commissioners of Customs. Nothing specially worthy of record appears to have occurred during the year. The out-door Customs establishment consisted of 923 men, 700 of whom were stationed in London and 223 at Gravesend. There were in the force during last year 534 cases of sickness, 148 of which were due to diseases of the respiratory organs, 84 to those of the organs of digestion, 9 of the urinary organs, 1 to periostitis, 46 to diseases of the skin and cellular tissue, and 66 to accidental injuries. Dr. Dickson says, "the same remarkable absence of zymotic disease, which has been commented on in former years, testifies to the fact that notwithstanding the vast number of vessels (some 12,000) on which these officers have been boarded for a greater or less length of time, the risk of their contracting or conveying infectious maladies is apparently infinitesimally small." These officers have, however, had fortunate escapes, for several vessels during the past year passed Gravesend and hauled into dock with contagious disease on board, among which the *Abbotsford* steamship was conspicuous, which, when examined by the officers of the Port Sanitary Authority in the Victoria Docks, was found to have no less than eight cases of small-pox on board. There is no doubt that the work of Customs officers afloat is often risky and by no means specially conducive to the maintenance of health.

POLICE RETURNS.

The Commissioner of Police of the Metropolis, in his annual report issued lately, and to which we have already had occasion to refer, states that during the past year 2773 persons suffering from accidents or other causes were taken by the police to hospitals. The gratifying announcement is made that there was a diminution in the number of drunk and disorderly persons in 1874. We hope the improvement will be continuous. Colonel Henderson complains of the difficulty of dealing with this class of persons. It is a duty in the execution of which the police are frequently

maltreated and always annoyed, "especially as the fact of a person being drunk is always a matter of opinion in which the medical gentlemen who are called in are frequently as much at fault as the police themselves." "There is, in fact, no medical test for drunkenness," bewails the Commissioner. It must be admitted that among such a huge number of cases an occasional mistake appears to be inevitable. We are glad to find that the most ample authority is now given to officers in charge of stations to send for medical aid in every case in which there is the least ground for doubt. In the year such aid was afforded to 7611 persons, of whom 2319 were found in a state of insensibility. The fees paid to surgeons out of the police funds amounted to £2115 of which a small moiety only was recovered. A great decrease in the number of prostitutes apprehended was observable. The general health of the force was about the average of former years.

IN PERILS BY WASHERWOMEN.

IT cannot be said that the sort of cleanliness secured by a plentiful recourse to the services of washerwomen is wholly productive of health or happiness. Apart from the circumstance that the soapy sisterhood are prone—especially those who protest in capitals that they use no chemicals—to reduce the newest and strongest raiment to the condition of tinder, there is the alarming fact that, as a rule, they cast everybody's clothes into the same cauldron, immerse them in the same indescribable solutions, and hang them up to dry in the same artificial atmosphere and humid exhalation of muck. It is too horrible to think to what dreadful contingencies the linen we wear in closest contact with the highly absorptive skin is exposed in the process of purification. Professor Tyndall has not yet scared the public with some sensational demonstration of the constituent parts of a vapour such as that with which the ordinary washerwoman fumigates the clothes of her customers after laving them in an elixir into the nature of which science should not inquire too curiously. If any such intellectual treat is in store for us, let us hope it may be long deferred. Meanwhile something should be done to secure at least the minimum of mischief from a measure of cleanliness meant to be health-preserving. An inspection of laundries, and particularly the establishments of those nondescript persons who "take in washing," would do much to throw new and needful light on the perils by which we are incontinently beset. Overcrowding in the matter of living is bad enough. We are not sure whether crowding clothes of all orders and conditions of foulness into one "wash," and then crowding them, damp and dirt-attracting, into an atmosphere seething with vapourised filth, is not as much to be deprecated and more to be feared.

OUTBREAK OF SCARLET FEVER AT HUDDERSFIELD.

SCARLET FEVER has made its appearance at Huddersfield, and the medical officer of health, Dr. Bland, reports that up to the evening of the 18th instant there have been seventeen cases since the 7th of August. All the early cases were scholars in the Huddersfield Church Infant School. The sanitary condition of the school does not seem to have been quite perfect—the gratings communicating with the drains to carry off the surface water being choked up, the closets not over clean, and the ashpit containing a quantity of semi-liquid excreta. The school-building itself, however, is lofty and well-ventilated. Dr. Bland very properly drew the attention of the Sanitary Committee to the importance of preventing "not only those who are recovering, but also those who have come in contact with them, from mixing with others, and so spreading the disease." The Sanitary Committee at once proposed to close the school in question, fearing lest other children should become infected, and a request to do so was addressed to the managers of the school, who at first declined to accede, but afterwards consented to close the school for three days! The Vicar of Huddersfield has written a letter to the Sanitary Committee denying that the school premises were in the insanitary condition described by the medical officer of health, and protesting against the closure of the school. As to the sanitary condition of the school, or whether the disease originated there, or was brought to the school, we cannot decide without a personal inquiry into the facts of the case made on the spot, but we heartily approve the action of the Sanitary Committee in closing the school after the appearance of scarlet fever among a considerable number of the scholars. The first duty of the Sanitary Committee was to check the extension of the disease, and this could only be done by isolation of the centres where the disease had been most severe and the cases most numerous. There is not a shadow of doubt that, however originated, the Infant School was the focus of the disease, and the intercourse of so many children at this infected spot was a source of danger to the inhabitants, and a means of disseminating the disease through all parts of the town.

HEAT OF RAILWAY CARRIAGES.

ONE of the many discomforts incidental to travelling at this time of year is the intolerable heat of the railway carriages, and the railway companies seem to do their utmost to increase it. We entered a carriage at Charing-cross Station the other day. It had evidently been standing for some time in the sun, for the wood was almost too hot to touch. The roof was black and dull—the best possible surface for absorbing heat, and both windows were shut. It was like entering a baker's oven, and we fled precipitately to a third-class carriage, where the temperature was, at any rate, some degrees below blood heat. In some conditions of body it would be highly unsafe to travel in such a carriage, and when we consider the ease with which the evil might be lessened, we are amazed that even railway officials do nothing in the matter. A false roof a few inches above the true one, painted white, and permitting the free passage of air below, would make a wonderful difference, and would be an advantage both in summer and winter. If any contrivance could be added which should allow the windows to be opened without giving entry to a cloud of dust, railway carriages might become positively comfortable, and some of the longing for State management of railways averted.

CAPTAIN WEBB AFTER HIS CHANNEL FEAT.

WE have received the following interesting communication from Mr. Thomas Law Webb, M.R.C.S. and L.R.C.P. Lond., of Ironbridge, Salop:—

"A few facts relative to the physical condition of my brother, Captain Webb, on his leaving the water after swimming from Dover to Calais, will be of interest to the profession. He assures me that on landing he did not feel at all cold, but was as warm as when he started. He felt, however, fearfully tired and exhausted, and was very sleepy. He fell asleep several times as he was being driven to his hotel, though roused repeatedly by his cousin (Mr. G. H. Ward, who never left him throughout), who thought it best not to let him sleep until he had taken some nourishment. At the Hôtel de Paris, he went to bed, and drank some hot wine. Immediately on getting to bed, he took his own temperature with a thermometer with which I had provided him, and found it to be exactly 98° Fahr. He did not *count* his pulse, but *felt* it, and says it was 'slower than

usual.' After five hours or so of sleep, he awoke feeling rather hot and feverish. He then took his temperature again, when it had risen to 101° Fahr. He says that his face was then flushed, and his skin hot and dry. He then slept again for some time, and on waking felt himself 'all right,' excepting a troublesome stiffness of the arms and legs, scarcely to be wondered at.

"Towards the termination of his swim he became nearly blind from the salt water. He denies that he was at any time delirious (as was stated in some of the newspapers), and Mr. Ward also says that he certainly was not so. Moreover, I think that his own careful temperature observations disprove this. He told me on Sunday last that his temperature, when taken the second time, was 101° Fahr.; and I find that my thermometer (which he has just returned to me) still registers precisely 101°. At present he is perfectly well in every respect—indeed, as well as ever he was; for we must not consider the abrasions on his neck caused by the salt water to be of any account. That he is apparently *not one whit the worse* is an immense relief and satisfaction to me, and a further proof of the perfection and soundness of his circulatory system and constitution generally."

THE GROUSE DISEASE.

A MEMBER of our staff writes:—"Reports from the Scottish moors this season have all the same tenour, 'Birds never were so scarce.' In fact so great is the dearth of game in some parts of Perthshire that shooting parties are already breaking up, and sportsmen are returning homewards. This is doubtless the result of the disease which has been so prevalent of late years, and which seemed to be the natural consequence of the enormous quantity of grouse bred in 1872, the moors at that time having been literally over-populated. Density of population amongst grouse, as amongst human beings, seems to have the effect of exposing the weaker birds to the ravages of epidemics, especially should a scarcity of food coincide with great increase in the numbers of the birds, as was the case in 1873. 'The survival of the fittest,' however, is a law which is applicable to birds as well as to men, and sportsmen may find some consolation in the fact that the birds shot this year have invariably been fine and healthy. I hear from one moor on which over 700 head of grouse have been killed that not a single diseased bird has been found. Those, therefore, who have sufficient self-denial to leave a fair number for breeding purposes may expect fine broods and large numbers next year."

ALCOHOL.

THE comparative effects of the various members of the series of alcohols obtained by fermentation have been studied recently by MM. Dujardin-Beaumetz, and Audigé. They found that the toxic properties correspond closely to their atomic composition; the higher the figures which represent the atomic weight the greater is the toxic property. The latter varies also, it is to be observed, according to the manner in which they are administered, being greater when introduced by the stomach than when injected under the skin. The experimenters explain this by assuming that the dilution of the alcohol by a foreign substance increases its toxic properties; it would probably be a more correct assumption that there are some limits to the power of subcutaneous absorption of alcohol. The effects of the several alcohols presented little difference beyond that of intensity; they were practically the same. The chief lesions found on post-mortem examination were congestion &c. of the mucous membrane of the intestine, congestion of the lungs, and pulmonary apoplexy. The intestinal congestion was so intense in some parts of the small intestine as to have led to hæmorrhage, and this was found equally whether the alcohol had been administered by the skin or the stomach. On the other hand, curiously enough, the pulmonary changes were more frequent when the alcohol was given by the stomach.

WISE PRECAUTIONS.

THE committee of the Children's Hospital at Birmingham are entering with admirable spirit into the very necessary precaution of separating cases of an infectious character from the general run of diseases. They are building new wards for fever, diphtheria, and croup, establishing quarantine wards, providing separate laundries and homes for nurses, so as to cut off every possibility of injurious communication with other parts of the establishment. The importance of these measures cannot be exaggerated, and we call attention to them with the view of lending what support we can to the movement, and with the further object of recommending the adoption of equally prudent reforms elsewhere. There can be no question that the condition of too many provincial hospitals is lamentable in the extreme. Under the plea of poverty some of these institutions perpetrate offences against the first laws of sanitary science which would call down the severest censure if committed by establishments not privileged as these are. It would be better to let the poor remain in their own homes at the mercy of their neighbours than to remove them to some of the hospitals started without sufficient resources or under management so defective in point of wit and zeal that they soon become worse than useless.

THE ARREST OF CARDIAC PALPITATION.

A CORRESPONDENT of *L'Union Médicale* draws attention to the influence on palpitation of the heart of lowering the position of the head. The effect is said to be its almost instantaneous arrest. Whether the palpitation be from nervous disorder of action or from anæmia, if the head be so lowered by bending forward that a mechanical congestion of the upper half of the body results, the irregular action speedily ceases. This treatment, however effective for pure palpitation, can hardly be recommended in cases of organic disease of the heart in which dyspnœa is associated with the disturbed action. It will probably be found useful in the simpler cases. The writer (Dr. Lardier of Rambervilliers) speculates that the effect may be analogous to or identical with the retardation of the cardiac pulsation which occurs as one of the earliest symptoms of asphyxia, and which appears to be a consequence of the venous stasis in the upper part of the spinal cord. It may, he suggests, be due to the failure of arterial stimulation to the roots of the nerves which pass from the spinal cord to the sympathetic, and which have for their function, as von Bezold showed, the acceleration of the heart's action.

SUCCESS OF STUDENTS AT EPSOM COLLEGE.

AT the last Matriculation Examination of the University of London many of the students of the Royal Medical College acquitted themselves creditably, and one, Mr. A. Cutfield, passed third in honours. At the subsequent First M.B. Examination we find in the list of successful candidates the names of no less than five Epsom students, Mr. F. Baylis, Mr. E. M. Cuffe, and Mr. Noble (the last now a scholar of Keble College, Oxford—a scholarship gained in open competition), standing in the first class, and Mr. Thomas and Mr. Yate in the second. Considering that this is the first time that Epsom students in the ordinary course of their studies have been prepared for the higher examination, the result must be regarded as very satisfactory.

PARTRIDGE DISEASE.

ACCOUNTS we have received describe the partridge-shooting this year as unsatisfactory. In Surrey especially the birds are very scarce in low-lying parts, although on the high ground coveys of fair numbers and quality are to be found. Scores of young birds have died from an inflammatory affection which attacks the eyes, producing blindness, and so depriving them to a great extent of the power of obtaining food. The continuous wet weather which prevailed at the time when the birds were hatched may account for much of this loss. It would be interesting to ascertain the precise nature of the disease by careful examination of a few dead birds. The result would reward the pathologist, and might prove valuable in more ways than one.

MORTUARIES.

THE want of mortuaries in the metropolis is so frequently made apparent in inquest proceedings that we welcome any attempt to increase a very necessary provision. We understand that Dr. Joseph Rogers will shortly submit the following motion to the consideration of the Strand Board of Works:—"That, with the view to the more effectually and economically securing the establishment of mortuaries in the different parishes of the metropolis, this Board do memorialise the Metropolitan Board of Works, urging that Board to apply for powers in the next session of Parliament authorising that body to undertake their erection in such parts of the metropolis as may be considered necessary."

STENCH ON THE SURREY CANAL.

WHY is there such an intolerable stench on the Surrey Canal at the point where the South Eastern Railway crosses it? We have known persons absolutely nauseated by it, and many close the windows as they approach the spot. Have the sanitary authorities overlooked this choice corner, or are there some technical difficulties which have prevented the nuisance from being swept away? Surely the powers of the new Public Health Act enable the medical officer of health to make very short work with the offenders.

THE Medical Officer of Health for St. George in the East, Dr. Rygate, has intimated to the district authorities that he will lay before the Metropolitan Board of Works at the next meeting an official representation concerning 291 houses in the parish, which by reason of want of light, air, ventilation, sanitary conveniences and other causes are unfit for human habitation, and require rearrangement or reconstruction. As might have been expected, such a resolution has proved distasteful to the vestry, who think they ought to have been consulted by their officer before he determined on such a step. We hope Dr. Rygate will disregard any factious opposition to his course of action. He has given an example of courage and independence which might well be followed by his colleagues in other metropolitan districts. It is impossible for medical officers of health to perform their duty as long as they are hampered by local influence.

IN London 1440 deaths were registered last week, including 1 from small pox, 22 from measles, 71 from scarlet fever, 10 from diphtheria, 53 from whooping-cough, 24 from different forms of fever, and 215 from diarrhœa. Different forms of violence caused 43 deaths. The Asylum District Fever and Small-pox Hospitals at Homerton and Stockwell contained 225 patients on the 28th ult., 180 of whom were under treatment for scarlet fever. Of foreign cities, Berlin, as usual, has the highest death rate—viz., 45 per thousand annually.

THE special report on the licensing laws in Liverpool, published in *The Times* of the 2nd inst., makes a particular reference to the surroundings of the Sailors' Home in that town, that must perforce remind all sanitarians of the necessity for an extension of the Contagious Diseases Acts to our mercantile marine towns in general, and to Liverpool in particular. It appears, too, that the work would in this instance be comparatively simple, as it would appear that the haunts of sailors' prostitutes in this port are well known. Houses of bad character are, according to the chief constable, "there so full of prostitutes, that a respectable person would not go in." Pending the adoption of the Contagious Diseases Act, we recommend all shipowners who have not a regular complement of seamen on their staff to take advantage of the 9th section of the Merchant Shipping Act of 1867, and have all suspicious hands medically examined before signing articles.

THE *Gentleman's Magazine* for this month contains an article by Mr. M'Cullagh Torrens, M.P., on Hospitals. He insists "that in proportion as hospitals are big they are bad; that, in proportion as they are far off, they fail; and that in proportion as they are crowded with an accumulated mass of disease they cease to be what they ought to be—refuges for the saving of life—and become pest-houses for the harbouring of death," and supports his contention by quoting the opinions of medical men in favour of treatment in small buildings. We shall next week devote greater space to the consideration of the article.

THE sanitary state of Camborne is, according to Mr. E. S. Angove, the medical officer of health for the district, far from satisfactory. There are a large number of nuisances which require to be removed; very many houses are without privy accommodation; the water-supply is defective; there are many open gutters which smell very offensively; while the drainage calls for immediate improvement. In spite of conditions militating so strongly against the preservation of public health, the death-rate is not so excessive in the district as might have been expected, a result no doubt due to compensating natural advantages.

WE are glad to find that the St. Pancras Vestry has resolved to take the initiative in removing some of the pest centres to which attention was recently directed in THE LANCET. One or two of the worst nests are to be cleared away under the new powers given by the Artisans' Dwellings Act, and the medical officer has been directed to inquire and report upon the general condition of the parish. It is much to be desired that the zeal evinced by this "local authority" may extend to the authorities of Kensington, Westminster, and Chelsea.

AT an inquiry held by Colonel Cox, the Local Government Board Inspector, relative to the proposed sewerage works at Aspull, near Wigan, the Commissioner stated there could be no question as to the desirability of providing an efficient system of sewerage for the township; the fact that last year the death-rate was 39·7 per 1000 showed, he remarked, even the necessity of such a provision more strongly than could any words of his.

WE gather from a recent report by Mr. S. W. North, medical officer of health for York, that scarlatina, though in a mild form, still exists in that city, in spite of the measures which have been adopted for its suppression. The governing authorities of schools in infected districts have been warned of the danger of receiving children from suspected houses, and this precaution, when exercised, will probably prove very efficacious.

WE have no doubt that a considerable impulse will be given to the temperance movement in this country by the fact that Her Majesty the Queen has lately consented to become a patroness of the Church of England Temperance Society, a society which does not necessarily insist on total abstinence from alcoholic liquors.

A SERIOUS outbreak of scarlatina is said to have occurred amongst the children in the married quarters at the School of Military Engineering. We hope shortly to ascertain some particulars regarding the epidemic.

WE understand that Sir Duncan Gibb has resigned the office of Physician to Westminster Hospital in consequence of the state of his health.

SIR JAMES ALDERSON, Knight, M.D., and Arthur Farre, M.D., have been appointed Physicians Extraordinary to Her Majesty.

SIR ROBERT CHRISTISON has been elected President of the British Association for the year 1876.

LUNACY.

THE last Report of the Commissioners in Lunacy (a brief statistical summary of which was given in THE LANCET of the 7th ult.) contains, as usual, a number of interesting facts relating to insanity. There is, of course, a large actual and comparative increase in the total number of persons under confinement or supervision. The county and borough asylums appear to be more and more crowded with harmless and chronic cases, which, according to the opinion of the Commissioners, might we well provided for in workhouse wards. But, if we remember rightly, it was decided long ago that lunatics or imbeciles ought not to be retained in workhouses, because no proper machinery existed for their safe keeping and accommodation. Hence the origin of the establishments at Leavesden and Caterham. It appears that in the large asylums the night watching is still very defective. Epileptic patients are found dead in bed, and suicides have occurred in the night. This is the third time that the Commissioners have specially alluded to these faults. They express in this report a strong opinion that the sick and dying demand continuous care and nursing during the night; that the epileptics should have assistance always at hand during their terrible seizures, and that all suicidal patients should receive strict personal supervision.

It appears that the boroughs of Portsmouth, Norwich, Bath, and Derby are still without asylums, and that the other boroughs mentioned in the last report as being similarly situated have not as yet taken any steps to comply with the provisions of the Lunacy Acts. Of the patients in local hospitals, the recoveries during the year were, as compared with the admissions, in the proportion of 45 per cent., or 5 per cent. higher than in the previous year. There are now 115 houses in England and Wales licensed for the reception of lunatics, which accommodate unitedly a total of 2293 males and 2638 females. In commenting upon the workhouse establishments, the arrangements made for epileptic cases at the Brownlow Hill Asylum, Liverpool, are severely censured. There are no closets or bath-rooms in connexion with the ward, and no special lavatory. The only court available for exercise is entirely flagged, and is used by the inmates of the surgical wards as well as by the imbeciles and epileptics. The same unsatisfactory condition of things still exists in the Nottingham Workhouse, although on two previous occasions the Commissioners have commented upon these defects. The day-rooms continue to be much overcrowded, the means of personal washing insufficient, and the means of bathing inadequate. Three prosecutions have occurred during the year, none of which call for special notice. The State Criminal Asylum at Broadmoor contained at the end of last year 509 inmates, of whom 402 were men and 107 women. No person certified to be insane whilst undergoing sentence of penal servitude has been sent to this asylum from Millbank since November last. Another asylum is contemplated for the lunatic convicts now accumulating in prison, and for such convicts as may hereafter become insane, but it is not proposed to transfer to the proposed asylum any of the convict class now confined at Broadmoor. The report as to the arrangements of this asylum are altogether very satisfactory, but the Commissioners recommend the appointment of a fourth medical officer, as the professional duties are very responsible, harassing, and hazardous.

The Hospital for Lunatic Soldiers at Netley contained 44 patients, but a want of comfort and cheerfulness is still observable in the day-room, and it is remarked that the frequent changes in the attendant staff are prejudicial to the inmates.

The Royal Naval Lunatic Hospital at Yarmouth accommodates an average of 190, and the Royal India Asylum at Ealing 119 inmates, as to both of which establishments favourable reports are made.

The seventeenth Annual Report of the General Board of Commissioners in Lunacy for Scotland shows that on the 1st of January, 1874, a total of 8069 lunatics existed in Scotland, 1455 of whom were maintained from private sources, 6563 by parochial rates, and 51 at the expense of the State. It is also estimated that nearly 2000 unreported insane are maintained by their friends in private dwellings, most of whom belong to the classes little removed from pauperism. So that the proportion of insane to population is as 228 per 100,000, the most striking feature shown being the great increase of patients detained in asylums; for gratuitous treatment in asylums is now obtained with greater ease, the institutions are more scattered over the country, and patients entering them do not require to be removed so far from home and friends. The chartered and Royal Asylums, which have been erected out of legacies and donations from charitable persons, take the place of district asylums in England and Wales. They are partially maintained also by profits derived from the care of wealthy patients, but it is much doubted whether this relief to ratepayers is desirable. A comparison of statistics shows that in Scotland the private insane are treated in public institutions to a much greater extent than is the case in England, there being in the former country a larger proportion of public establishments of a high character receiving private patients.

Correspondence.

"Audi alteram partem."

WOOD v. THE MANCHESTER, SHEFFIELD, AND LINCOLNSHIRE RAILWAY COMPANY.

To the Editor of THE LANCET.

SIR,—A letter, written by Mr. Withington, of Doncaster, and an annotation, which appeared in your issue of August 21st, are my excuse for troubling you with regard to the above. Moreover, it is due to myself, to those gentlemen who took part with me in the case, and to the Company whom I advise, that deductions from an *ex parte* statement should not remain unchallenged.

The facts of the case are briefly these. Mr. Wood, farmer, of Darfield, near Barnsley, was one of several persons injured in a collision at Conisboro' station on November 21st, 1874, caused by a light engine going at the speed of six or seven miles an hour running into a train standing in the station. On Nov. 30th I first saw Mr. Wood at his house with his medical attendant, Dr. Seaborne, of Wombwell. Mr. Wood had traces of a bruise on the left temple; his left wrist was swollen; there were marks of abrasion, nearly healed, about the left elbow; he complained of occasional headache, sleeplessness, and felt shaken. On Dec. 23rd I received a letter from Dr. Seaborne to the effect that his patient, being well, was willing to settle with the railway company. On Jan. 2nd, 1875, I received another letter from

Dr. Seaborne to say his patient had become very ill indeed, asking me to see him, and telling me that Mr. Lister, of Doncaster, had been called in. On January 6th, accompanied by Dr. Leech, I went to Wood's house, having previously advised Dr. Seaborne that I was coming (a fact hitherto unquestioned until Dr. Withington's letter). To our surprise, neither medical attendant nor consultant was present, and it was not until I met Dr. Seaborne upon a subsequent occasion that I became aware that he had misunderstood what I wrote. After waiting for Dr. Seaborne a short time, and finding that if he was sent for he could not arrive in time to meet us, having obtained permission from the family to see Wood, we went into his bed-room; he was lying in bed on his back, in a dreamy, partly delirious condition; he knew me, called me by name, shook hands with me and also with Dr. Leech. His temperature was 103·6°; his pulse 130, feeble, the beats being somewhat indistinct. His tongue had a brown streak down the centre, the edges red. He had slight sordes on his teeth. His pupils were moderately dilated, responded well to the action of light, and exhibited no symptom of intolerance of light. The abdomen was distended, there was much pain on pressure in the right iliac fossa, and there was an ill-defined rash on the lower part of the sides of the abdomen. His wife told us the excreta were voided involuntarily and had been for two days. He had subsultus tendinum. There was no complaint of headache or vomiting, though his wife said that these symptoms had been troublesome. We considered that the symptoms pointed to typhoid fever and not to cerebral mischief, and so I reported to the Railway Company. We were at that time utterly ignorant of the existence of typhoid fever in the vicinity of Wood's house. On January 10th Wood died.

On January 11th, about 10 P.M., a telegram arrived at my rooms to say a post-mortem examination would take place next day at 10 A.M. I went to Barnsley (Darfield is five miles off in the country) as early as I could, and hence was not there at the time fixed by Dr. Seaborne, of which I had such short notice. Fortunately Dr. Seaborne had waited a considerable time, and when I arrived merely the skull-cap and a small piece of the dura mater had been removed. Drs. Lancaster, Blackburne, Aitcheson of Barnsley, and myself watched the dissection of the brain and its membranes throughout, and failed to see any abnormal appearances beyond some congestion of the pia mater and choroid plexus and slight opacity of the arachnoid membrane. If Dr. Withington will refer to Gray's, or Quain's, or Wilson's "Anatomy," and read up "Glandulæ Pacchioni," he will find in my "important admission" simply a recognition of a very common well-known anatomical appearance, certainly very different from the lymph of recent meningitis. It will thus be seen that four medical men who watched intently the whole dissection of the brain coincided in the opinion that there were no signs of meningitis. It would appear from Dr. Withington's letter that I did not see sufficient of the examination of the brain to form any opinion about the existence of meningitis; as a matter of fact, however, I was present during the whole of the examination except the removal of the skull-cap and the raising up of a small portion (not over two inches square) of the dura mater. The gentlemen who conducted that part of the post-mortem adopted the somewhat remarkable plan of raising in the first place a piece of the dura mater close to the longitudinal sinus at the vertex. That he should find when he did this "strong bands of lymph," which he subsequently described as like catgut, is perhaps not so much to be wondered at, but I fail to see how these could indicate that the patient had died of acute meningitis. I may add that Dr. Aitcheson, who saw this piece of dura mater removed, is quite certain that the appearances observed were normal. Even if the report presented by the medical men acting for the family at the inquest be accepted, the appearances would hardly be compatible with death from acute meningitis, for no trace of pus or purulent lymph was described as being present. But, as above stated, four medical men who watched the post-mortem absolutely deny the existence of any lymph whatsoever, and of these one, Dr. Lancaster, was for five years assistant medical officer at the West Riding Lunatic Asylum, and thus had special opportunity of being acquainted with the normal and abnormal appearances of the brain, having during that time made numerous post-mortems in cerebral cases. I must add, in fairness to myself and friends, that at the beginning I suggested a common note-taker, and that we should go into the case together. This was at once refused and quashed by Mr. Lister and his colleagues. The rest of the post-mortem appearances were, in short, these: lungs slightly congested, old pleuritic adhesions most marked on left side; heart healthy; liver congested on anterior edge; kidneys congested; stomach, duodenum, and jejunum nothing abnormal; in the lower two or three feet of the ileum the solitary glands were enlarged; the mucous membrane generally was congested, and about seven or eight inches from the ileo-cæcal valve were three *enlarged, raised,* and *intensely congested* Peyer's patches; the spleen was enlarged, and the mesenteric glands increased in size.

I was very anxious indeed to preserve the diseased portions of the intestines, and wished that they should be at once sent, together with the spleen, to any pathologist of eminence; but the opposition to my doing so was so very strenuous I had to give in, remembering I had no *locus standi,* only being present by "courtesy."

Now, with regard to the probability of Wood having contracted typhoid fever, we have distinct proof—first, that in cottages within fifty yards of his house there were then cases of typhoid fever, and had been for some time previously, and that the epidemic existing then was the second in six months; secondly, that the sewage from the houses in which were typhoid cases drained into a tank situated between the well of the farm pump and the cottages; thirdly, that the tank was full of this sewage and overflowing; fourthly, that the water of the farm pump contained organic matter, so as to render it unfit, and was condemned by Dr. Sadler, the medical officer of health for the Barnsley district. Dr. Sadler distinctly gave it as his opinion that the contents of the tank which received the sewage from the cottages where typhoid fever existed found their way into the pump well. The pump from this well was situated within a few yards of the door of Wood's house, and it was acknowledged that the water was used for general purposes, though denied that it was used for drinking. The drinking water, it is asserted, was always drawn from a pump situated two hundred yards from the farmhouse, but it was shown that even this water contained so much organic matter that it was unfit for use; and the medical officer states that, though close to this well there was some refuse which he believed was ash-pit refuse, from which the impurities might be derived, and though there was a slight inclination in the strata from this last-named well to the tank, still, that when the tank was full, its contents might readily permeate into the well from which the drinking-water was drawn.

I shortly note to you as follows some of my reasons for advising the Railway Company to resist a claim for causing Wood's death:—1. That during life I recognised the symptoms of typhoid fever. 2. That in my opinion, and in that of three other medical men of acknowledged position who saw the post-mortem examination, the lesions observed were those of typhoid fever, and not of meningitis. 3. That when the Company submitted the whole evidence, which had been most minutely and carefully taken at an inquest lasting three days, to three such authorities as Dr. Murchison of London, Dr. Noble of Manchester, and Dr. Clifford Allbutt of Leeds, they all reported in no undecided terms that, from the evidence given, they were of opinion that Wood died of typhoid fever. In the face of these would the Railway Company have been justified in paying a heavy claim, based on the assumption that Wood had died through their neglect?

I wish, in conclusion, to allude to a few points specially raised in Dr. Withington's letter. With regard to the headache, it was not present on the 6th of January, the day I visited Wood; it was not constantly present until the time of his death. Mrs. Wood, in her evidence, stated that her husband knew her up to the time of his death. This is not compatible with a comatose state. Although Peyer's patches may be reddened and made more distinct by purgative medicine, it can hardly be believed that a sharp aperient given sixteen days before death, and an ordinary dose of calomel a few days subsequently, would produce the condition characteristic of typhoid fever described in the report of the post-mortem by a gentleman who gave evidence for the plaintiffs, as in the "early stages of ulceration." With regard to the fact that, though between fifteen and sixteen days elapsed between the first

symptoms of disordered health and death, yet distinctive ulceration had not appeared, all I can say is, that though Dr. Mahomed views this as absolutely contraindicating typhoid fever, yet two physicians, Dr. Murchison and Dr. Allbutt, who have made typhoid fever a special study, do not coincide in this opinion.

I have enclosed you a copy of the shorthand notes taken at the inquest, and other papers in connexion with the case, and I submit that had the case been tried before Dr. Withington's ideal tribunal, "arbitration by competent judges," and not before a jury, the verdict would have been upon the other side.

I am, Sir, your obedient servant,

Manchester, August 25, 1875. R. DAGRE FOX.

THE CASE OF GENERAL REECE, C.B.

To the Editor of THE LANCET.

SIR,—My attention has been directed to the leader in your issue of the 14th inst., and Dr. Harrington Tuke's letter thereon in your paper of the 21st inst.

The question as to General Reece's sanity will, it appears, be tried in the Probate Court, his sons having determined to dispute his will. I presume Dr. Tuke was ignorant of this fact, or he would not have attempted to induce the public to prejudge the case. Suffice it for me to say that Drs. Wilks, Sillifant, and Langston are all satisfied the General was of sound disposing mind, and that five gentlemen, as fully competent as medical men generally are, who were present when the General instructed the solicitor to prepare the will, which unfortunately induced the sons to call in Dr. Tuke on the day it was executed, will all swear that General Reece was capable mentally of disposing of his estate. The case, however, opens up much more important ground to the public, and I cannot help thinking that had Dr. Tuke known all the facts he would not have expressed his opinion that "it shows very forcibly the intense jealousy of our English law of any undue influence with the liberty of the subject, and, with the present legal safeguards, proves the impossibility of any really sane man being wrongfully treated as a lunatic." On the contrary, the case, as you observe, "illustrates very forcibly the need for extreme caution in dealing with those supposed to be insane." I have known General Reece for twenty years. His married life was not happy, for very early he was separated from his wife, by whom his children were brought up. I have now before me a letter from the Rev. W. S. Reece, admitting I knew his father much more intimately and better than he did, and giving as a reason that he had seen little or nothing of him since he was seven years old. In March last I was sent for to see General Reece. I found him in apartments he had resided in for six years. He was very ill from bronchitis, and desired to make his will. He had repeatedly explained to me the manner in which he should leave his property, and had asked me to be his executor, but this I had declined. After several interviews, he wrote me he was better, and should postpone making his will until he could come to my office; but he had a severe relapse, and I then, with his solicitor, Mr. Pike (Merriman, Pike, and Merriman), attested his will. I forbear mentioning its provisions for obvious reasons, but as the General became worse, I repeatedly urged him to permit me to write to his two sons (his daughter was and is in Australia); he, however, refused, as he had a great dislike to his children knowing how he had bequeathed his property. Eventually I insisted he should let them know he was ill, and to this he assented, upon condition that they did not come to town. Subsequently I was allowed to summon them, but the General dreaded their coming, and more than once declared that he knew he should suffer in consequence. In a few days he sent for me, expressed great indignation and regret at the treatment to which he was subjected, as it confirmed his forebodings, and he determined to alter his will. Both sons were informed of this intention, and they agreed to an arrangement between themselves to divide equally, but the next day the younger one informed me that he should dispute the will, as he believed his father to be insane. I cautioned him that the result might be very disadvantageous to him pecuniarily, and his brother asked me to prepare a formal notice for his signature, intimating that if the attempt was persisted in he would not be bound by the agreement mutually entered into; and he further asked me, as he could not longer remain in town, to arrange for the removal of his father nearer to my office. On the 26th of June Dr. Broxholm was of opinion the General might be removed, but arrangements made for this purpose were frustrated by Lieutenant Reece having informed his father that he was to be taken to a lunatic asylum, and the latter then again expressed his determination to alter his will. Both Mr. Pike and I did all we could to combat this intention, and eventually the General removed his affairs from Mr. Pike, and placed them in the hands of another solicitor, by whom the new will was prepared, I, with four gentlemen, being present when the instructions were given, and on this occasion with the knowledge of Lieutenant Reece. I consented very reluctantly to act as executor, but declined to receive a legacy. This was on the 1st of July, and, by special appointment with the General, I called to see him on the 3rd of that month, when, to my great surprise, I was refused admission, and informed that Drs. Tuke and Broxholm had signed certificates of lunacy. The next day I, with Dr. Wilks, saw Dr. Broxholm, who stated that the proceedings had been taken with the authority of the Lunacy Commissioners, and he declined to allow Dr. Wilks or myself to see the General. I at once submitted a full statement of the case to the Commissioners, and in reply received from their secretary a letter as follows:—"Major-General Reece has been placed under the charge of John Wheeler, by order of his son, Lieutenant Reece. The Commissioners in Lunacy have no authority to order the detention of a private patient." I sent a copy of this to Dr. Broxholm, and again demanded admission to the General. This being refused, I consulted no less than six eminent Chancery and common-law counsel, all of whom declared the case unprecedented, and the only advice I could get was to bring an action for false imprisonment. This being obviously useless, I, at the suggestion of an eminent authority on lunacy law, applied for a writ of Habeas Corpus, and I believe Justice Denman would at once have granted one had a member of the General's family applied, but he directed a summons to be served upon Lieutenant Reece and John Wheeler, to show cause why the writ should not issue. This summons was heard before Baron Cleasby, who at once said I must have access, and I left the Chambers with the distinct understanding that this would be allowed; but it was again refused, and it was not until the 9th of July that I, in the presence of Drs. Wilks and Broxholm, saw the General. From this date until the 26th of July every device was resorted to by the sons to delay the proceedings and to prevent my seeing the General, and I did not again do so until that day, when Dr. Wilks was again present, and the General himself wrote a letter to the Judge, requesting the writ might issue, and this was accordingly done on the 28th of July. The return was that the General was insane and physically incapable of removal, but it was not until the 31st of July, although I had made repeated applications, I saw the certificates of lunacy; but Baron Cleasby, seeing the flaw in them, upon which you very properly comment, and which Dr. Tuke states arose from directions received from the Commissioners, at once declared they were no answer to the writ, and that, as regarded the state of the General's health physically, he would satisfy himself; and his lordship accordingly, with his physician and clerk, went the same day to the General's apartments. After an interview of twenty-five minutes I was called in and informed by Baron Cleasby that the General could not be removed, but that he was fully entitled to the free use of his will, and that I, his solicitor, and any friends must see him whenever we pleased; and his lordship added, "that if he did not then make a formal order, it was only because he felt sure his directions would be respected by all parties." On this occasion the General declared I had his full authority for all I had done, thanked me, and begged I would see him with the solicitor the next day, and in the presence of Baron Cleasby, and with his lordship's full assent, the General then signed an official document. Judge my surprise upon calling the next day to find that I and the solicitor were jointly refused admission to the General, although, after considerable difficulty, we were permitted to see him separately. He was then much distressed, and I have no doubt the repetition—after believing he was free—of the treatment to which he had for thirty-one days

been subjected had a very prejudicial effect upon his health. He declared he should have no peace until his son and the keeper were committed for contempt, and begged me to go at once to Baron Cleasby. This I did, but, being Sunday, nothing effectual could be done, and upon returning to Huntingdon-street the solicitor, after much trouble, discovered the General was dead. I do not suppose Dr. Tuke has purposely misstated the facts, but he would lead the public to believe that upon my representation the Commissioners instituted an inquiry. I annex a copy of their last letter to me in reply to my request, after the General's death, that an inquiry might be instituted. Dr. Tuke says the imprisonment lasted twelve days. The number was thirty-two. He says that upon application "Judge's orders were freely made to give me access to the patient." The above facts speak for themselves. And he adds: "The action by the learned Judge proves how much importance he attached to the question, and the promptitude with which he would have acted if he had found it necessary;" whereas, as soon as the various obstacles thrown in the way were removed, the Judge did act, but, backed by Dr. Tuke's certificate, the son actually set the Judge at defiance. I have no doubt Dr. Tuke was imposed upon, but what would he have said if the General had made a will in favour of the persons with whom he had resided so many years, and then, in consequence of kindness shown him by his sons during his illness, he had altered it in their favour? Would Dr. Tuke have then said he was acting under "undue influence and suffering from senile imbecility?" I think he will, now that he knows the truth, regret that he signed the certificate so readily.

There are, of course, numerous other facts, but I have trespassed too much already upon your space. I will only add that I have placed all the circumstances before the Home Secretary with a view to an alteration being made in the existing law, under which, I have no hesitation in saying, any English man or woman can be locked up in his or her own house without the possibility of seeing anyone but those who have taken the proceedings or who have been selected to carry them out. I trust I have said sufficient to induce you to lend me your valuable aid to ensure an alteration in the law. I have no pecuniary interest in the case, and am acting solely as the friend and executor of the late General Reece.—I am, Sir, your obedient servant,

Parliament-street, London, August 25th, 1875. S. P. LOW.

THE WEBB TESTIMONIAL FUND.

To the Editor of THE LANCET.

SIR,—Captain Webb is the son of a medical man in this neighbourhood, who is highly respected for his remarkable integrity of character and strictly upright and honest dealing in his profession; his grandfather and uncle were also surgeons of high standing, practising extensively some years ago near Wellington, Salop, and his eldest brother has succeeded his father, who from a long and laborious practice is too much enfeebled to render any assistance.

I should be much pleased to see a fund raised by medical men, to acknowledge the unprecedented feat and undaunted bravery of the son of a professional brother, who has had a family of fourteen children, twelve of whom are living.

I enclose a P.O.O. for two guineas.

I am, Sir, yours truly,

EDWARD G. BARTLAM, F.R.C.S.

Brosley, Salop, August 30th, 1875.

*** We have much pleasure in inserting the above letter, and shall be most happy to receive subscriptions for the furtherance of this fund. Amounts already received:—Dr. J. G. Wakley, £2 2*s.*; Mr. John Tweedy, £2 2*s.*; Mr. E. G. Bartlam, £2 2*s.*; Mr. S. Potter, £2 2*s.*

IRELAND.

(From our own Correspondent.)

THE prospect of a good harvest is very general throughout this island, notwithstanding the occurrence of heavy rain in some parts of the country, the effects of which are considered injurious according to the local reports.

Foot and mouth disease has occurred in some parts of Ireland; it is hoped, however, that the extent of its ravages is not very considerable.

The loss of nearly fifty thousand sheep in Ireland last year by dogs certainly demands the attentive consideration of the authorities. Doubling the dog tax and the immediate destruction of the many mongrels, and other apparently ownerless dogs now at large in this island, appear more than ever necessary at the present time. We look on the preservation of our food supplies as a medical matter, concerning so intimately as it does the public health.

Apropos of the enlargement and rebuilding of Coombe Hospital, now rapidly approaching completion, thanks to the very important aid of Sir Arthur Guinness, Bart., we may mention that a grateful remembrance of the present Baronet's father, to whose munificence Dublin owes the restoring of St. Patrick's cathedral, in the shape of a very interesting statue by the late Mr. Foley, has just been placed on its handsome pedestal within the railing which surrounds the cathedral in Guinness-street, on the south side of the nave of the cathedral. We have just had the pleasure of inspecting this very admirable work of art, which is a faithful likeness, and which is peculiarly interesting as being, it is said, the last of the eminent artist's works which received his final touches.

At the last meeting of the Dublin Sanitary Association, a resolution of condolence with the family of the late Dr. D. T. T. Maunsell was unanimously adopted. A resolution was also unanimously adopted by the same body, expressive of the desirability for prompt action, by the local Sanitary Authorities of Dublin, under the Artisans and Labourers' Dwellings Improvement Act of 1875, in a city where those classes suffer, as they at present so much do, from the want of suitable dwellings.

Dublin, September 1st, 1875.

Obituary.

JAMES NANCE, F.R.C.S. ENG.

MR. NANCE, the only surviving son of the Rev. John Nance, D.D., rector of Hope and Old Romney, Kent, was born on 20th May, 1818. He was articled to Curtis and Son, of Dorking, in 1835; afterwards studied at University College; became M.R.C.S. Eng. and L.S.A. Lond. in 1840, and F.R.C.S.E. in 1864. He practised at Ecclesall, Staffordshire, for upwards of thirty years, and died there, on May 15th, from (1) coma and (2) irritative fever, after a fortnight's illness, aged fifty-six.

His estimable and honourable conduct gained him universal respect, while his generosity of character and kindness of heart made him many friends. His medical skill, care, and attention, were bestowed as freely on the poor as on the rich, and even more abundantly, very often in cases in which no remuneration was ever asked for or thought of.

His funeral took place at Ecclesall on May 20th, and was attended by a large number of the inhabitants of Ecclesall, together with representatives from the various clubs of which he was the medical officer, as well as by numerous friends, assembled from far and wide to show public testimony to his worth. His name will ever be treasured in the memory of his friends and in the gratitude of the poor.

JOHN THOMAS MERCER, M.B.

A YOUNG man has recently passed away, immolated at the shrine of his profession by diphtheria. Gentle, kind, and unobtrusive, he never made an enemy. To the poor his life was one continued benefaction. When they heard of his death they stood aghast in tearful groups of four or five, and each one had some past benefit to recount. His every neighbour felt that he had lost a friend, and his convalescent patients went to bed again, so great was the shock to them. It is not a little thing to make a mark like this at the age of thirty-six; yet it is a grateful tribute

to the daily teachings of a well-spent life. Honour and uprightness in thought and action made him the repository of all confidence, social and material, which is rarely accorded to men of twice his age.

In his brief illness he was gentle and patient and thankful, but never hopeful of his recovery. Sir William Gull, to whom he was clinical clerk, put off his appointments that he might give his help and sympathy to a professional brother, but all availed not. He passed away like a sleeping infant, without a struggle or a sigh. Such was the end of John Thomas Mercer, M.B., on June 9th, 1875. He was interred in Norwood Cemetery, and followed by the whole of the profession in the neighbourhood.

HENRY ASHTON, L.R.C.P. EDIN.

MR. ASHTON was born on the 5th March, 1813, at Slaithwaite, Yorkshire, received his early education under the Rev. P. Steel Dale, of Heallin's Green, Cheshire, and his medical education at Manchester. In consequence of bad health, he did not obtain the L.S.A. Lond. till 1847, when he commenced practice at Ramsbottom, where he speedily obtained a good connexion; but, not liking the neighbourhood, removed to Walton le Dale in 1849, where he remained until his death on the 11th May, at the age of sixty-two. In 1859 he passed the necessary examination, and obtained the L.R.C.P. Ed., and in 1860 was unanimously elected an honorary corresponding fellow of the Edinburgh Obstetrical Society, on the nomination of the late Sir J. Y. Simpson. He was an occasional contributor to THE LANCET and other medical journals, and also to the provincial press on social and sanitary matters.

Mr. Ashton was a man of great energy, and untiring in the practice of his profession, making each case a separate study, and, though somewhat brusque in manner, had a singular faculty for obtaining the confidence of his patients, which he rarely afterwards lost.

JOHN McDERMOTT, M.D.

DR. JOHN MCDERMOTT, son of Edmund McDermott, Esq., of Cherryfield, County Roscommon, was born on the 21st June, 1796. He studied at the school of the Royal College of Surgeons, Ireland, became M.R.C.S. Eng. in 1824, L.R.C.P. in 1846, and M.D. of the University of Glasgow in 1847. He entered the Royal Navy as Assistant-surgeon 30th December, 1825; became Acting Surgeon of H.M.S. *Sparrowhawk*, 4th of July, 1834; served on the Home Station, West Indies, and South America; was invalided from the last station in April, 1836, and subsequently quitted the service. He settled first at Tacna, in Peru, where he had an extensive practice, and afterwards at Santiago, in Chili, where he met with great success, and won the esteem and gratitude of the community. Failing health compelled his return to England in 1863, and his retirement from the exercise of his profession. He died at his residence Shrewsbury-road, Westbourne-park, on the 10th May, from senile decay, aged 78.

G. CANNEY, M.D., F.R.C.S.

WE have to record the death of Dr. George Canney, which took place at his residence, High Bondgate, Bishop Auckland, a short time since from apoplexy. Deceased, who was in his fifty-sixth year, was a native of Bishop Auckland, and was the only surviving son of the late George Canney, M.D. He took his degree at University College, London, at the hospital of which he was for some time house-surgeon. He was physician to the late Dr. Maltby, Bishop of Durham, as also to Bishops Longley and Villiers. Deceased held a high position as a physician in the North of England, and during the thirty-five years he resided in Bishop Auckland had an extensive practice. He was a liberal supporter of the Mechanics' and other institutions calculated to benefit his town. The intelligence of his sudden death evoked a feeling of sorrow in the town and neighbourhood. In politics the deceased was a staunch Conservative.

CHARLES T. HUSTON, L.R.C.S.I.

MR. CHARLES TODD HUSTON was born in the year 1823, educated at Dublin, and became a Licentiate of the Royal College of Surgeons, Ireland, in 1848. On the resignation of his father in the year 1853 he was appointed medical officer of the Tynan Dispensary district in the Armagh Union, which appointment he held up to the time of his death, which took place at Tynan on the 11th May, at the age of fifty-one. By his demise the poor have lost an attentive, kind, and generous attendant, and his numerous private patients a skilful physician and a true friend.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Aug. 26th:—

Dobbie, Robt. John Algernon, Budleigh Salterton.
Laird, John, Palace-street, Pimlico.
Lewis, Edwin Alaric, Loraine-road, Holloway.
Oldham, Samuel, Burslem, Staffordshire.
Sargent, Arthur Francis, Lancaster-place, Belsize.
Upton, Alfred, Petworth, Sussex.
Worswick, Fredk. Henry, Hulme, Manchester.

The following gentlemen passed the Primary Professional Examination on the same day:—

Robert Kendray Archer, Westminster Hospital; William Laird Cox, St. Mary's Hospital; William George Creswell, Queen's Hospital, Birmingham.

At the recent examination for the Prizes in Materia Medica and Pharmaceutical Chemistry the successful candidates were:—

1st.—Frederick Freer Leslie Robertson, St. Bartholomew's Hospital. The Gold Medal.
2nd.—Neville Scott Whitney, University College. The Silver Medal and a Book.

THE library of the Obstetrical Society will be closed from September 6th to September 18th, both days inclusive.

PHARMACEUTICAL SOCIETY OF IRELAND.—The following constitute the first Council of this Society:—President: Sir Dominic Corrigan. Vice-President: Aquilla Smith. Council: William Henry F. Allen, M. V. Bourke, Thomas Collins, Dominic Corrigan, William Frazer, J. Goodwin, William Goulding, William Harrington, William Hayes, John Hodges, E. M. Hodgson, J. Holmes, R. W. King, C. H. Leet, Rawdon Macnamara, J. B. Owens, J. E. Reynolds, John Ryan, Aquilla Smith, C. R. C. Tichborne, and H. Whittaker.

DONATIONS &c., TO MEDICAL CHARITIES.—Sir John Arnott has executed a deed of gift, vesting the sum of £20,000 in trustees for the benefit of charitable institutions in Cork. About £9000 has already been subscribed out of the £15,000 required for the new Clayton Hospital and Wakefield General Dispensary. Mrs. Gibbs, of Tyntesfield, has endowed four beds at the Weston-super-Mare Sanatorium with £50 a year each, representing a capital of £5000 and upwards. The Sussex County Hospital, Brighton, has received £500 under the will of Mrs. Blegborough.

Medical Appointments.

ATTWATER, A. W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer of Health for the Wickham Urban Sanitary District.

BROWNE, J. W., B.A., M.D., M.R.C.S.E., has been appointed a Surgeon to the Belfast Royal Hospital, vice Dr. S. Browne, R.N., J.P., Senior Surgeon, resigned.

BROWNE, S., M.D., M.R.C.S.E., J.P., has been appointed Consulting Surgeon to the Belfast Royal Hospital, after twenty-five years' service.

CROLY, A., L.K.Q.C.P.I., L.M., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Glencullen Division of the Dundrum and Glencullen Dispensary District of the Rathdown Union, vice Sutton, resigned.

DAVIDSON, C. M., M.R.C.S.E., L.M., has been appointed Medical Officer to the Lead Company's Workmen's Medical Union, Alston.

EVANS, H., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Croydon General Hospital, vice Ilott, resigned.

FAULKNER, W. I., M.D., C.M., has been appointed House-Surgeon to the North Staffordshire Infirmary, Hartshill, vice COX.

GILL, J. B., M.D., M.R.C.P.Ed., M.R.C.S.E., L.S.A., has been appointed Medical Officer of Health for the Sandgate Urban Sanitary District, vice Howard, resigned.

GRIFFITHS, J. T., L.R.C.P.Ed., L.F.P. & S. Glas., has been appointed Medical Officer of Health for the Llandwrog Sub-district of the Carnarvon Rural Sanitary District, vice Williams, resigned.

HART, W. H., M.B., C.M., has been appointed Medical Attendant to the Royal Irish Constabulary, Tullow, Co. Carlow, vice Burnett, deceased.
HOAR, C. E., M.B., L.R.C.P.L., has been appointed a Physician to the West Kent General Hospital, Maidstone.
JAMES, C., M.R.C.S.E., L.S.A., has been appointed Medical Officer for No. 2 District of the Marlborough Union, vice Ryder, resigned.
JOHNSTONE, C. R., L.S.A., has been appointed Assistant Medical Officer to the Haydock Lodge Retreat, Ashton, vice Anderson, appointed Senior Medical Officer to the West Derby Union Workhouse, Walton.
LESLIE, E. J. L., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Hampshire Friendly Society, Holybourne District.
MORGAN, E. R., M.R.C.S.E., has been appointed Assistant-Surgeon to the 15th Glamorgan Volunteers.
O'GRADY, W. F., L.R.C.S.I., L.M., has been appointed Junior Assistant Medical Officer to the Workhouse Infirmary, New Bridge-street, Manchester, vice Pountney, resigned.
OLDHAM, S., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Norton District of the Leek Union, vice Goddard, resigned.
RENNY, A. W., M.D., has been appointed House-Surgeon to the Stirling Royal Infirmary and Dispensary, vice Purves, whose appointment has expired.
SHAND, J. W. F. S., M.D., L.R.C.S.Ed., has been appointed Professor of the Practice of Medicine in the University of Aberdeen, vice Mac Robin, resigned.
SHORLAND, E. P., M.R.C.S.E., L.S.A., has been appointed Medical Officer and Public Vaccinator for No. 1 District and the Workhouse of the Westbury and Whorwellsdown Union, Wilts, vice G. Shorland, deceased.
SMITH, J. P., L.R.C.P.Ed., L.R.C.S.Ed., L.M., has been appointed Resident House-Surgeon to the Loughborough Infirmary and Dispensary, vice Bailey, resigned.
THOMAS, G. D. P., M.R.C.S.E., has been appointed Medical Officer of Health for the Willesden Urban Sanitary District.
WALTER, W., B.A., M.B., L.M., L.K.Q.C.P.I., L.R.C.S.I., has been appointed House-Physician to the North Staffordshire Infirmary, Hartshill, vice Faulkner.

Births, Marriages, and Deaths.

BIRTHS.

BROWN.—On the 26th ult., at Broadstairs, the wife of C. R. Brown, M.D., of Beckenham, prematurely, of a daughter.
FISHER.—On the 23rd ult., at Mellifont-avenue, Kingstown, the wife of J. W. Fisher, M.D., Staff Surgeon H.M.'s Ship "Vanguard," of a daughter.
HOPKINS.—On the 30th ult., at Esbourn, Beckenham, the wife of Alfred B. Hopkins, M.R.C.S.E., of a son.
LUPTON.—On the 13th ult., at Stratford-on-Avon, the wife of Harry Lupton, L.R.C.P.L., of a son.
LYNES.—On the 26th ult., at Priory-row, Coventry, the wife of Edward Lynes, M.D., of a son.
MARSHALL.—On the 24th ult., at Oak-bank, Lamberhurst, the wife of John J. Marshall, L.R.C.S.I., of a son.

MARRIAGES.

DAVIS—LAWSON.—On the 26th ult., at St. Mary's Catholic Church, Norwood, John Norman Davis, M.D., Surgeon Army Medical Department, to Mary Emily Barron, daughter of the late John Lawson, Esq.
KIDD—ROUSE.—On the 1st inst., at Balham, Joseph Kidd, M.D., to Frances Octavia, daughter of R. J. Rouse, Esq.
PEARCE—THACKRAH.—On the 31st ult., at Virginstow, Devon, Edward Thos. Pearce, L.R.C.P., of Holsworthy, to Mary Eden, only daughter of John Thackrah, Esq., and granddaughter of the late John Collins Browne, Solicitor, of Holsworthy.

DEATHS.

BALLENDEN.—On the 25th ult., at Sedgley, Staffordshire, J. H. Moffat Ballenden, M.R.C.S.E., aged 35.
BURROWS.—On the 20th ult., at Normanton, Thos. Ash Burrows, L.S.A.L., aged 66.
CHILVER.—On the 15th ult., at Upper Brunswick-place, Hove, Brighton, T. F. Chilver, F.R.C.S.E., aged 70.
DILLON.—On the 26th ult., at Waltham-terrace, Blackrock, Co. Dublin, Thos. Dillon, M.D.
HENRY.—On the 27th ult. (at the residence of his brother, Emerson W. Henry, M.D., C.M., Lowther-street, Whitehaven), George Henry, L.R.C.P.Ed., L.R.C.S.Ed., aged 29.
MACKESON.—On the 22nd ult., at Church-street, St. Peter, Brighton, H. S. Mackeson, M.R.C.S.E., aged 69.
NUNN.—On the 17th ult., at Portsea, R. M. Nunn, M.R.C.S.E., aged 73.

[*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Dr. Cobbold: On Tapeworms.
Mr. Thomas: Diseases of the Hip, Knee, and Ankle Joints.
Octavia Hill: Homes of the London Poor.
Gregory's British Metric Arithmetic.
Dr. De Mericourt: Modern Naval Hygiene.
E. Bergmann: Die Resultate der Gelenkresectionen im Kriege.
Cyclopædia of the Practice of Medicine. Vol. X.
A Dictionary of Science, Literature, and Art. Vols. I., II., & III.
Dr. Fayrer: The Royal Tiger of Bengal.
Bancroft: The Native Races of the Pacific States of North America. Vol. III.
Rev. J. T. White: Livy, Book XXIII.
Mr. Wilson: Chemical Notes for Pharmaceutical Students.

Notes, Short Comments, and Answers to Correspondents.

THE STUDENTS' NUMBER OF THE LANCET will be published on Saturday next, Sept. 11th. Those gentlemen holding official situations connected with Medical Institutions in the United Kingdom, who have not yet forwarded the necessary information to our Office for publication in that Number, are earnestly requested to send it *without the delay of a single post.*

BABY FARMING AT UXBRIDGE.

A RECENT inquest on the body of an illegitimate child disclosed the fact that a married woman, living at Hillingdon Heath, near Uxbridge, had recently had under her care two infant children of domestic servants, and Dr. Diplock, the coroner, ordered her to be prosecuted, under the Infant Life Protection Act, "for receiving for hire two infants under the age of one year for the purpose of nursing, apart from their parents, for a longer period than twenty-four hours, the house not being registered in accordance with the provisions of the Act." The case was heard on the 30th of August at the Uxbridge Petty Sessions, and the magistrates, in consideration of the fact that it was the first case of the kind which had been brought before them, dismissed the summons, with a warning to the defendant that if she again received infants to nurse, without registering her house, she would render herself liable to a fine of £5, or six months' imprisonment. It is much to be regretted that these cases of baby farming usually escape notice until their fatal results appear in the death register. This being the case, it is somewhat difficult to sympathise with the extreme leniency shown to the offender in the above-mentioned case. A conviction and the infliction even of a nominal fine would at any rate have served as a more useful warning to others who, almost in ignorance of the Infant Life Protection Act, may be rendering themselves liable to penalties under its clauses. The greater publicity that is given to such cases the greater is the probability of others being brought to light.

Dr. Mackey is thanked. It shall be published soon.

THE DEATH UNDER CHLOROFORM AT QUARRY BANK.

To the Editor of THE LANCET.

SIR,—I see in the last number of THE LANCET that Mr. Ker, while abandoning several of his points of attack on Mr. Ashmead, still reiterates one or two others. Having assisted at the autopsy of M. Wyatt, I should like, with your permission, to make one or two remarks.

Mr. Ker's dictum in regard to the empty condition of the heart's cavities precluding death from suffocation does not accord altogether with the teachings of forensic medicine, where the law is not so rigidly laid down. The case of Carlo Ferrari, the Italian, who was first made intoxicated and afterwards suffocated, is an example of this kind, both sides of the heart being found empty. The action of chloroform appears to me to be likely to produce a similar effect, insensibility often taking place before respiration has been interfered with, and consequently lessening in a great degree the struggles of the patient. That the violet tint was not the result of post-mortem decomposition is reasonable, as nothing approaching it was visible on any other part of the body, though Mr. Ker says that "there could be no doubt about it." Mr. Ker was present at the examination of the lungs, and appeared to be satisfied that they were in a diseased condition. He did not, although laying so much stress upon it now, make any allusion to the hydrostatic test then, and I do not think it would have been mentioned had not Mr. Ashmead stated that the deceased was a bad subject for the administration of chloroform. Notwithstanding the authority quoted of the unnamed pathologist, I would remark that the hydrostatic test is not quite free from objection, as the lungs might have floated from the effects of decomposition and the generation of gas, and therefore would not of itself have proved that they contained air. Pathology has advanced sufficiently, I deem, to show without this test whether consolidation of the lungs existed or not. Air was not squeezed out, but pus was, on making numerous sections with the knife; the texture was denser, and the colour of the surface was not that of healthy lung.

The question was put before Mr. Ker left, whether any further examination of the abdomen was wished. It was, however, further examined when securing the stomach. Mr. Ker left before the post-mortem examination was finished, and before Dr. Walker arrived. Mr. Ashmead has already admitted that he overstated the amount of pus in the abdomen, which he most certainly did.

Mr. Ker attempted in his first letter to infer the post-mortem conditions from the diagnosis—an unusual method, and with which the medical referee is not concerned. The clinical history of the case does not, however, point to healthy lung.

In conclusion, I would remind Mr. Ker that if he had anything to allege against the correctness of the tests for chloroform, the inquest was the proper place to impugn such testimony.

I am, Sir, your obedient servant,
JAMES BRADLEY, M.R.C.S.

Pensnett, near Dudley, Aug. 24th, 1875.

*** Here this controversy must end.—ED. L.

Mr. A. Lloyd Jones.—Full information may be obtained by addressing a communication to the Under-Secretary of State for India, at the India Office. The address referred to was not published in the columns of THE LANCET.

F. H. D.—We will endeavour to comply with our correspondent's request.

THE BOARDING-OUT OF ORPHAN PAUPER CHILDREN.

THIS system meets with unmeasured condemnation at the hands of Mr. E. C. Tufnell (long known as one of the inspectors of workhouse schools) in an article in *Macmillan's Magazine* on the Education of Pauper Children, whilst the system of district schools is correspondingly lauded. The writer advances three objections, which he terms "unanswerable," to the boarding-out plan:—First, that it simply takes notice of the best conditioned children—the orphans,—and wholly neglects the casuals, from whom alone the real difficulty of pauper education arises, and who are seriously injured by the removal of the best behaved. Secondly, that it sanctions what Lord Henniker calls "the iniquitous practice of non-resident relief. Thirdly, that it is opposed to the old principle of directly encouraging independence, industry, and thrift among the labouring class, and directly discouraging their opposites. We must refer to our number of Nov. 14th last year for our views on this question, merely repeating here that the favourable results of the system already made known—e. g., in Cumberland—fully warrant its more extended trial.

Mr. W. Berry is thanked for his letter.

A MEDICAL CORONER'S INQUEST.

To the Editor of THE LANCET.

SIR,—The letter published in THE LANCET of the 28th inst., headed "A Medical Coroner's Inquest," will, I earnestly hope, direct the attention of the profession to a grievance from which others besides Mr. Chatterton have suffered. I allude to the unjustifiable imputations which are too often thrown upon medical men by coroners' juries, and sometimes by coroners themselves, without the victims being able to obtain any redress.

If a tithe of what Mr. Chatterton says be true, can anyone doubt that he has been grievously wronged? A charge of malpraxis, which, if established, would result in a criminal prosecution, is as serious a matter for a medical man as a charge of forgery would be to a banker or anyone in a position of trust. But if anyone were rash enough to insinuate the latter on the same flimsy grounds that coroners' juries base the former, it is more than likely that smart damages in an action for libel would teach the accuser the value of reticence.

I apprehend that inquests exist for the purpose of ascertaining the cause of death, and to deliver an opinion as to whether such cause be natural, suicidal, homicidal, accidental, or the result of culpable carelessness. But without a post-mortem, how is it possible to ascertain the cause of death in such cases as the above. A verdict delivered upon such insufficient grounds is absolutely worthless, and any insinuation of malpraxis is simply impertinent.

Unfortunately in some parts of England—I speak from experience—the notion prevails amongst the class from which coroners' juries are chiefly drawn that an inquest is held for the purpose of *trying somebody for culpable carelessness* or crime of some sort; and if the relatives of the deceased (who, if not on the jury themselves, are sure to have friends amongst them) take into their wise heads to differ from the medical man concerned in the case as to the propriety of his conduct and treatment, it requires very little to persuade a country jury that the medical man deserves a criminal prosecution. Now, if such cases as Mr. Chatterton's were always to be followed by similar proceedings, our lives in benighted districts would become simply unbearable, and we should have to organise a general exodus—say to Central Africa, where I understand the native "medicine men" are treated in a less heathenish manner by their sable patients.

In conclusion, I beg to say that Mr. Chatterton and the coroner are alike total strangers to me. I am, Sir, yours &c.,

Staunton, Gloucester, Aug. 31st, 1875. C. MOSS CAMPBELL, M.D.

MISPLACED BENEVOLENCE.

WE have received a letter from *Captain Brabazon*, "Hon. Secretary to the Central London Throat and Ear Hospital, Manchester-street, Gray's-inn-road," with reference to an article in our impression of the 21st ult. under the above heading. We must decline to enter into a controversy with a lay correspondent on a matter the merits of which can only be judged from a professional stand-point. We will only say that we see nothing in Captain Brabazon's letter to modify our opinion of small special institutions such as that whose claims he advocates.

Enquirens.—If our correspondent will write to Professor Humphry, Cambridge University, he will get the information he seeks. We believe there is an examination in October.

EXTRACTION OF A BOUGIE FROM THE FEMALE BLADDER.

To the Editor of THE LANCET.

SIR,—The following case may be of interest to some of your readers, such not frequently occurring in the practice of the same country surgeon.

Aug. 14th, 1875, 3 P.M. Mrs. ——, aged eighty. Thirty years ago she was supplied by two surgeons of repute, both since dead, with a male metal bougie to pass into her bladder from time to time, owing to occasional difficult micturition, which was attributed to a small fibrous tumour at the orifice of the urethra. She has used it since till it has worn and broken to 3¼ inches in length. This she passed at 3 A.M., when it slipped into the bladder. She hoped it would pass back; hence the twelve hours' delay in requesting assistance. I passed a forceps into the bladder, and after a few attempts grasped the middle of the bougie. I then put my left forefinger into the vagina, and steadied it directly across the neck of the bladder. I then loosened the blades of the forceps, and carried my right hand to the right thigh, and tightened the blades, and carried my hand to the middle line. By repeating this manipulation three or four times I could feel nothing projecting beyond the forceps on the left side. I then succeeded without difficulty in extracting the leaden bougie, 3¼ inches long, No. 8 size.

15th.—4 A.M.: Removed by catheter a pint of urine stained with blood, and gave twenty grains of chloral hydrate.—9 P.M.: Has slept, and passed urine comfortably, and of normal colour.

17th.—Convalescent.

Framlingham, August, 1875. Yours truly, GEO. E. JEAFFRESON.

Dr. Tattersall, (Clayton.)—1. Our correspondent's qualifications and the fact of his having passed the preliminary examination in Arts at Apothecaries' Hall do not exempt him from being compelled to pass the matriculation examination and the other examinations required by the University of London to obtain the M.B. degree, unless his diploma dates prior to the year 1840, in which case he will be admitted to the 1st M.B. examination direct.—2. At least one year's residence is required by the Scotch Universities. Our correspondent's best plan would be to apply to them for information. Aberdeen would be suitable.—3. To obtain the F.R.C.S., he must pass the two examinations (primary and pass) required by the College. For further particulars, see the Students' Number of THE LANCET.

A Governor.—The rule seems explicit enough. A candidate must be F. or M.R.C.S. The governing body might, of course, frame a bye-law to meet such a case as that described.

ORGANISATION OF THE MEDICAL DEPARTMENT OF THE ARMY DURING WAR.

To the Editor of THE LANCET.

SIR,—With the Army Circular of August, 1875, the authorities have issued a pamphlet, showing the "war strength and composition" of the various components that will for the future go to make up an "army corps," as the new nomenclature of war designates what, at all events as far as England is concerned, is really an army complete in every essential.

With the purely military portion of the scheme THE LANCET has little to do, except to take a general glance at the strengths of the various atoms that unite to form the one harmonious whole; but the portion relating to the medical service of the army is specially interesting to all professional readers.

The pamphlet is drawn up as follows:—First, the exact composition of a regiment of infantry and cavalry is noted; then of batteries of artillery, with the reserves, engineer, pontoon, and telegraph trains. Next is detailed the ambulance equipment, with that of field hospitals; then follows the army service corps. The composition of a brigade of cavalry and infantry is then detailed; then that of a division; and, finally, an "army corps," complete in all its parts, is given *in extenso*. The total of an infantry regiment is put down at 1097 of all ranks, with one medical officer, who is also entered as being a mounted officer. A regiment of cavalry is to have a strength of 480 horses, with a total of 549 men of all ranks. One medical officer is also allotted, with two chargers. To each battery of artillery, and to each reserve, engineer, pontoon, and telegraph troop, a surgeon is detailed, and it is specially noted that each company of the army service corps is to be so composed "as to allow at once, upon entering upon active service, of division into two companies, so that it may be locally augmented with rank and file and horses, there being sufficient trained officers and non-commissioned officers in each company for the purpose."

The details of the medical department for a field hospital then follow. Each is to contain 200 beds, with the following staff:—Medical officers, 7; captain of orderlies, 1; men of army hospital corps, 37; drivers, 12—total, 49. Hospital waggons, 4; surgery waggons, 2—total, 6; with 24 horses. The medical officers are to be detailed thus—1 medical officer in charge, 2 senior surgeons, 4 surgeons. With each cavalry brigade, consisting of three regiments of cavalry and a battery of Royal Horse Artillery and staff—in all, 2139 men,—1 field hospital will be allowed, with 4 ambulances. To each infantry brigade, consisting of three battalions and staff, with a total of 3496 men, 2 field hospitals, and 4 ambulances will be allotted. A division will consist of 10,156 men of all ranks, with 12 divisional ambulances, 3½ field hospitals, and a grand total of 73 officers of the medical department. The grand total of an army corps will consist of 36,805 men of all ranks, with a medical staff numbering 297 officers, 2195 men, 568 drivers, and 1310 horses.

The above scheme certainly reads very well; but it at once becomes a question, so far at all events as the medical establishments are concerned, where are they to come from? The medical department is to furnish 297 officers, or, omitting the officers of the army hospital corps, 280 purely medical officers. As a liberal allowance, let it be presumed that 80 surgeons accompany the corps to which they are now attached, and it leaves a balance of 200 surgeons and surgeon-majors to be supplied from the staff of the United Kingdom. A reference to the last Army List will show that there are not more than that number at present serving on the staff at home who would be eligible to proceed on active service, and, be it remembered, this would drain all the large military hospitals of every effective man, and leave the sick of the army at home and the invalids from the seat of war to be provided for as best could be done.

In addition, it is to be borne in mind that the surgeons of the militia are gradually dying out, and, of course, if there was a war, and the militia were embodied, their medical attendance would have to be provided for as well. The present scheme of the Government is understood to be as follows:—The medical charge of the militia is to devolve on the medical officers of the regular service, more particularly on those who are in charge of depôt brigades; and in time of war the main portion of the work in the field hospitals will be performed by civilians hired for the occasion, at liberal salaries, from the ranks of the profession in the United Kingdom. Is it not self-evident that such a system must fail? Granting that Government is willing to pay civilians at the rate of £1000 a year for service in military hospitals, how many men worth their salt will be found willing to throw up their practices for the chance of employment for three, six, or twelve months, knowing full well that on their return they will find their posts occupied, and themselves with nothing to look forward to except to begin life all over again?

Be it remembered the Government has made provision for reserves in every portion of the army but the medical department, and that while it can count on men of means coming forward to officer the militia and volunteers, it is impossible to calculate on getting a supply of medical officers willing to sacrifice their own future for an ungrateful country.

This organisation looks very well on paper; but when put to a practical test it will prove an utter failure as far as the medical service is concerned. The strength of the army medical department is daily growing smaller; recruits cannot be obtained on the present terms, and at the current rate of decadence the medical service of the State will become hopelessly crippled within the next few years.

August, 1875. Yours obediently, ARMY SURGEON.

HEALTH OF IRELAND.

A QUARTERLY report of the births, deaths, &c., just issued, states that, as compared with the preceding quarter, there has been a marked improvement in the sanitary condition of the country, the deaths registered being lessened by 5214. The deaths from small-pox numbered 225, showing a slight decrease as compared with the first quarter of the year. The deaths from this disease were distributed as follows throughout the four provinces:—Leinster, 8; Munster, 0; Ulster, 13; Connaught, 204. Abundant evidence is furnished by the observations of the registrars to show that the disease has been widely spread by the pernicious practice of inoculation. Every effort is being made by the authorities to detect the inoculators; but the difficulty of procuring such evidence as would make them amenable to justice is very great. Small-pox of a most malignant type broke out in Athenry district, Loughrea Union, and proved fatal in 40 instances. The deaths of 11 persons returned as centenarians were registered, including 2 stated to have been aged 105 years, one 108, and one 118. With reference to the last-mentioned, the registrar of the district, in reply to a special query respecting the case, furnishes the following information:—"I beg to state that my informant who signed the entry in the register, as being present at the death of the old man, was the son of the deceased. He told me he had, as well as others, frequently heard his father say that he was 41 years old when the French landed in Killala, in 1798, and the truth of this statement was never questioned. This would bring his age up to exactly 118 years. I may add that there were several persons present at the time of my registering the death, all of whom coincided in the opinion that his age was not, and could not be, less than that represented to me."

SPOONFULS.

To the Editor of THE LANCET.

SIR,—It must have occurred in the practice of every medical man of any standing that over-doses of important remedies have been sometimes taken by their patients, from the old-fashioned habit of ordering mixtures in spoonful doses. To avoid this as much as possible, I have for years adopted the plan of using marked bottles in every case (where I could get them of the right size), and it is easy now to get of Messrs. Maw, Son, and Thompson, from Messrs. Wright, Sellers, and Layman, or from other sources, bottles marked in teaspoonful or tablespoonful doses as may be required. And I have had sets of labels printed; "one of the marked doses to be taken every —— hours," or "half one of the marked doses to be taken three times a day," specimens of which I enclose. With these the prescriber knows exactly how far he may go with important drugs, and unpleasant consequences such as I mention may be avoided. As coincident with the case in your article, I some months since had to treat a patient complaining of tickling cough, and I sent a linctus (which I had long been in the habit of using), containing a small quantity of belladonna, to be taken in dessertspoonful doses every two or three hours. This was forwarded in a three-ounce bottle without marks. My patient sent for me late at night in great haste. He had taken three doses of the medicine, he said, and was so horribly dry about the throat that he expected instant suffocation. He could not see distinctly, and felt quite dizzy and light-headed. He had sat down to tea, and when he tried to swallow bread-and-butter it stuck in his throat, and he was choked, until by putting his finger in his mouth he had at last set up a little vomiting, and got some slight relief. He said he thought I must have poisoned him, and he begged to have some antidote administered. Himself and friends assembled at the house were in great alarm. I could only account for his state on the supposition that much more of his remedy had been taken than I intended; so I asked to have the mixture shown me, when I found, to my astonishment, that the bottle only contained half an ounce of fluid, and that his three doses (i.e., three dessertspoonfuls) had actually amounted to two and a half fluid ounces, instead of six drachms, as it should have been. The whole thing was explained, and I was able to reassure my patient. I got him to swallow some strong tea and some ammonia, and he soon recovered, although he was days before the pain in the throat and chest left him.

I have avoided similar unpleasantness since by giving strict orders to my dispenser to use only marked bottles for such things.

I remain, Sir, yours &c.,

Stansted Montfichet, Aug. 24th, 1875. SYDNEY HAYNES.

E. K.—In order to ascertain whether the organic impurity is due to sewage contamination, it would be necessary to submit the water to a thorough chemical analysis. This could be done only by an expert. Before going to that expense, we advise our correspondent to see if the fault does not arise from a foul condition of the cistern. When was it last cleaned out? Is it well protected from the atmosphere? Is the waste or overflow pipe disconnected from the sewers? Many of the complaints that have reached us with respect to the bad water supplied by the metropolitan Water Companies have, on investigation, been traced to neglect of the above particulars.

WE are compelled to postpone the publication of an article on Sir Robert Christison and Conjoint Schemes.

TREATMENT OF HERNIA BY INVERSION.

To the Editor of THE LANCET.

SIR,—I was called to a man on the 21st inst., with an old oblique inguinal hernia on the left side. Not being able to reduce it as he had hitherto done, I was sent for. He had been vomiting, and was in great pain. Failing to reduce it by the taxis, I put him in the position recommended by Dr. Thornton in THE LANCET of the 14th inst., directing him not to meddle with it for four hours, at which time I called, and was pleased to find he had got it back after being three hours in that posture.

Yours faithfully,

Falmouth, Aug. 23rd, 1875. T. STOKES GUPPY, M.D.

AN UNPREPOSSESSING TRIBE.

MR. B. F. HARTSHORNE, in a communication to the section of Anthropology at the British Association, gave some interesting particulars of the social condition and habits of the Weddas of Ceylon. These curious people, it seems, still depend for their means of subsistence upon bows and arrows, and pass their lives in the vast forests of the country without any habitation, and without making the rudest attempt at cultivating the soil. No flint or stone implements are to be found amongst them, and they produce a flame by rubbing two sticks together. Their intellectual capacity is so small that they are unable to count or to discriminate colours. They are almost destitute of the religious sentiment, as well as of an appreciation of personal cleanliness, for they habitually eschew ablutions; yet, singularly enough, they abhor theft and lying. But perhaps the most remarkable trait in the character of the Weddas is the apparent absence of a faculty which is held to be peculiar to the human race—laughter. It is stated that they regard the expression of merriment by others with surprise and disgust, and not one of the Weddas was ever known to laugh.

EXTENSIVE ULCERATION OF THE OS UTERI DURING PREGNANCY TREATED BY NITRIC ACID.

To the Editor of THE LANCET.

SIR,—During the month of April I was sent for to see a patient about five and a half months pregnant, who the midwife thought was miscarrying. On making inquiries I found she had been ill for some weeks past, and that for the last four days there had been so profuse a sanguineous discharge that she had become much weakened. She was also in a very depressed state of mind. On making a vaginal examination I found the lips of the womb gaping, much thickened, soft, but resisting. I was able to pass the index-finger about an inch and a half along the cervical canal, at which point it became very contracted and firm. The membranes could not be felt. The patient was then placed in a cool bed, with the hips slightly raised, and a sulphuric acid mixture ordered for her. When seen the next day she was still in a very low state, the bleeding not having abated in the least. I then introduced a Ferguson's speculum, and found the os extensively ulcerated, with blood exuding from the raw surface. Solid nitrate of silver was applied freely, and repeated in two days, which had the effect of completely stopping the bleeding. She was now treated with strong nitric acid, which was applied with the stiff side of a quill feather, the surface of the ulcer being quickly brushed over, and the feather passed for about half an inch up the cervical canal, there being cervical leucorrhœa present. The surface was cleaned with lint before each application of the acid. This was done at intervals of a week or a fortnight, according to the appearance of the ulcer, and at the same time a weak astringent lotion given her to use night and morning. Under this treatment she rapidly picked up strength, her spirits soon returned, and she is now quite well, and within a few weeks of her confinement.

It is well not to remove the speculum too soon after the application, as the fumes from the acid are liable to cause pain.

I remain, Sir, yours &c.,

Manchester, August, 1875. C. S. RICHARDSON, L.K.Q.C.P., &c.

Subscriber.—1. We would advise our correspondent to procure the Registration Act. It can be obtained at the Acts Office (Spottiswoode's), New street-square, E.C.—2. Any duly qualified member of the profession is eligible for such appointments. Application should be made to the chief inspector for the district.—3. It can be obtained at the same time as the other Act.

Mr. Berridge.—We will make inquiries, and will give our correspondent an answer at an early date.

Romeo should consult a surgeon.

THE paper of *Dr. Grainger Stewart* shall appear in an early number.

A MEDICAL SICK CLUB.

To the Editor of THE LANCET.

SIR,—Would you or any of your readers kindly inform me if there exists such an institution in connexion with the medical profession as a Club or Society conducted on the principles of the ordinary Friendly Societies scattered over the country. It would be a great boon to many, especially young men who have no accumulated store to fall back upon, to have some such staff of support should sickness or injury fall suddenly upon them. If there be no Society of the kind immediately connected with our profession, I should be obliged to any of your readers who would point out to me one of the ordinary Friendly Societies likely to answer my purpose.

Yours very truly,

Greenwich, Aug. 31st, 1875. NEMO.

*** Similar inquiries are frequently addressed to us. We should be glad to see a good Medical Sick Club established, and have no doubt it would prove a success.—ED. L.

REFUSAL TO SUPPLY A MEDICAL OFFICER OF HEALTH WITH RETURNS.

DR. HORACE SWETE, medical officer of health for the Droitwich urban and rural districts, on issuing his first report, writes:—

"Of prevalent diseases I can only speak from the small amount of personal observation I have had since May, and from the registrar's and union returns, the medical men in the town refusing to give me any information. This is from no want of courtesy to myself; but they say that, from a matter of principle, they ought not to give any assistance, or do any work, beyond their contract as district medical officers, without increased pay, and argue that, as the district sub-registrars are allowed payment for information of death to the medical officer of health, so ought they to be remunerated as district medical officers. I regret that there seems to be no means in the present law of giving these district officers any extra remuneration."

"A PRIVY ATMOSPHERE."

THE Cardiff Board of Health is likely to find its energies severely taxed, if the report of its medical officer does not overstate the condition of matters with which it has to deal. The district of Canton is, it seems, in a most deplorable state, what with defective cesspools, ditches flooded with fetid water, and pestilent pools, stinking and stagnant. The house refuse appears to be carried away by the floods occasionally, but by scarcely any other scavenger. The case is pithily summed up by the medical officer in a sentence: "The whole of the sanitary district of Canton had a regular privy atmosphere when I was last there." Remembering that the port of Cardiff is frequented by a considerable number of vessels in the course of the year, and that the sailors and other persons visiting Canton, to say nothing of the resident population, are liable to contract and carry away, as well as to increase, the diseases prevalent in this salubrious district, it will be interesting to know that the "main sewer" so long desired has been at length obtained, and that the immunity of the locality from serious disease is not wholly dependent on "lime."

M.D. Lond.—We understand that an Italian translation of Professor Balfour Stewart's work on Energy has just been issued, but we have not been informed of the name of the publisher.

DOCTORS AND DRUGGISTS.

WE have received a communication from *Mr. Garman* in reply to Mr. Rugg's letter in our last issue. We think the reply should come from Mr. O'Donovan.

ERRATUM.—In the tenth line of the second paragraph of Dr. Woods' paper on Thoracic Aneurism, published in our last number, page 308, for "anterior," read *external*.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. Aveling, London; Dr. Daly, London; Mr. Searle, Brixham; Dr. Browne, Belfast; Mr. Roberts, Derby; Mr. Lithgow, Wisbeach; Dr. S. Smith, Bristol; Dr. Blanc, India; Surgeon-Major W. Curran; Dr. Senpleton, London; Dr. Vachell, Cardiff; Mr. Webb, Ironbridge; Mr. J. Sharp, Axminster; Mr. Elwin, Dover; Mr. Macrae; Mr. Dunne, Over; Mr. Walker, Crayford; Mr. Lord, Brighton; Mr. Fox, Warrington; Mr. Lawrence, London; Dr. Griffith, Penygroes; Mr. Jackson, London; Mr. J. Eastwood, Blackburn; Dr. Burnett, Chester-le-Street; Dr. Moore, Dublin; Mr. Allen, London; Dr. Grainger Stewart, Edinburgh; Mr. Bradley, Manchester; Dr. Stewart, Heidelberg; Sir Duncan Gibb, London; Mr. J. C. Leach, Sturminster Newton; Dr. Mackey, Birmingham; Dr. Chalmers, London; Mr. Berridge, London; Messrs. Keith and Co., Edinburgh; Dr. Eddison, Leeds; Dr. Campbell, Gloucester; Messrs. Blackie and Son, London; Mr. Holcroft, Macclesfield; Dr. E. T. Smith, Hounslow; Dr. Hinds, Birmingham; Mr. North, York; Messrs. Smith and Son, Dublin; Mr. Low, Sydenham; Dr. Cartwright Reed, West Indies; Mr. Hunter, Aberdeen; Dr. Woods, Walmer; Mr. Heath, Heckmondwike; Mr. Wilson, Deal; Mr. Moore, Neath; Dr. Cutbertson, Zanesville, Ohio; Mr. Maclehose, Glasgow; Mr. Cran, Wester Clova; Messrs. Hewlett and Co., London; Mr. Watkins, Worcester; Mr. Gurney, London; Mr. Spurr, Sheffield; Messrs. Richardson & Co., Leicester; Dr. Griffiths, Sheffield; Dr. Lupton, Stratford-on-Avon; Mr. Frank Cowan, Pittsburgh, U.S.A.; Mr. Johnson, Colchester; Mr. Chatterton, Hayfield; Dr. Richardson, Manchester; Mr. Morgan, Neath; Mr. Taylor, Bocking; Mr. Garman, Bow; Dr. Long, Hackney; Messrs. Macniven and Cameron, Edinburgh; Mrs. Norton, Norwood; Mr. Garrett, Castletown; Mr. Lammeman, Tunbridge Wells; Dr. Laffan, Cashel; Mr. Walter, Dublin; Enquirens; An Old Subscriber; L.F.P.S.; Omega; A Governor; A Game Bird; Enquirer; J. S.; M.D., Chester; Surgeon; W. L. H.; Alpha, Burnley; Nemo; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Satchell, Tunbridge Wells; Dr. Huggard, Wexford; Dr. Gaylor, Belper; Dr. White, Market Rasen; Mr. Thomas, Manchester; Mr. Cordwent, Taunton; Messrs. Simson, Wakeford, and Co., London; Mr. Pettinger, Hulme; Mr. Thorpe, Walsall; Mr. Putsey, Hull; Mr. Oldham; Mr. Coward, Huddersfield; Mr. Thomas, Shirehampton; Mrs. Maskelyne, London; Mr. Appleby, Newark; Mr. Plumer, Poynton; Mr. Chapman, Morecambe; Mr. Sharpe, Hunslet; Mr. Richardson, Bryngwy; Mr. Edwards, Furneaux Pelham; Mr. Bartlam, Brosley; Mr. Mayne, Honiton; Mr. White, Kensington; Mr. Lampson, York; Mr. Henry, Whitehaven; Dr. Simons, Boreham; Mr. Hartley, Crewe; Dr. White, Brighton; Mr. Ebegele, London; Mr. Clements, Rochester; Mr. Collins, Gloucestershire; Messrs. Bleeck and Leech, Bath; Dr. Pearce, Holsworthy; Dr. Hodgson, Preston; Dr. Williams, Whitstable; Mr. Lynes, Coventry; Mr. Collier, Sheffield; Dr. Scott, Southampton; C. H., Sheffield; T. N. D., London; R. W., London; B. O., Holloway; Delta, Newcastle-on-Tyne; L. P. H., Woolpit; Medicus, London; T. T., Oldham; M. B., Glasgow; F. W. C., Buckhurst Hill; M.D., St. Ives; Alpha, Oldham; R. S. A.; Alpha, London; Medical Aid Society's Dispensary, Macclesfield; Surgeon, Romsey; F. M. A. B., London; The Registrar, Aberdeen University; Demonstrator, London; C. D.; A. B., Leicester; Erasmus; M.D., Bury; Beta, London; M.D., Wakefield; Calb, London; Medicus, Romsey; D. B., Manchester; Z., Bangor; Medicus.

Western Morning News, Welshman, Cork Constitution, East London Observer, Manchester Guardian, Macclesfield Courier, Birmingham Morning News, Newcastle Chronicle, Surrey Advertiser, Huddersfield Chronicle, Liverpool Post, Leeds Mercury, Record, Kent Messenger, and *Brighton Guardian* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, SEPT. 2ND, 1875.

Date	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min. Temp	Rainfall.	Remarks at 8 A.M.
Aug. 27	30·15	W.	59	62	104	75	57	...	Overcast
" 28	30·12	W.	57	60	84	69	50	0·32	Overcast
" 29	29·92	E.	57	62	91	68	56	...	Cloudy
" 30	30·12	N.W.	55	5C	105	72	53	...	Cloudy
" 31	30·03	W.	55	61	105	72	55	...	Cloudy
Sept. 1	30·31	N.W.	50	53	98	73	50	...	Fine
" 2	30·21	W.	60	63	99	71	53	...	Overcast

Medical Diary for the ensuing Week.

Monday, Sept. 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 3 P.M.

Tuesday, Sept. 7.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Sept. 8.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 3½ P.M.

Thursday, Sept. 9.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Sept. 10.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 11.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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